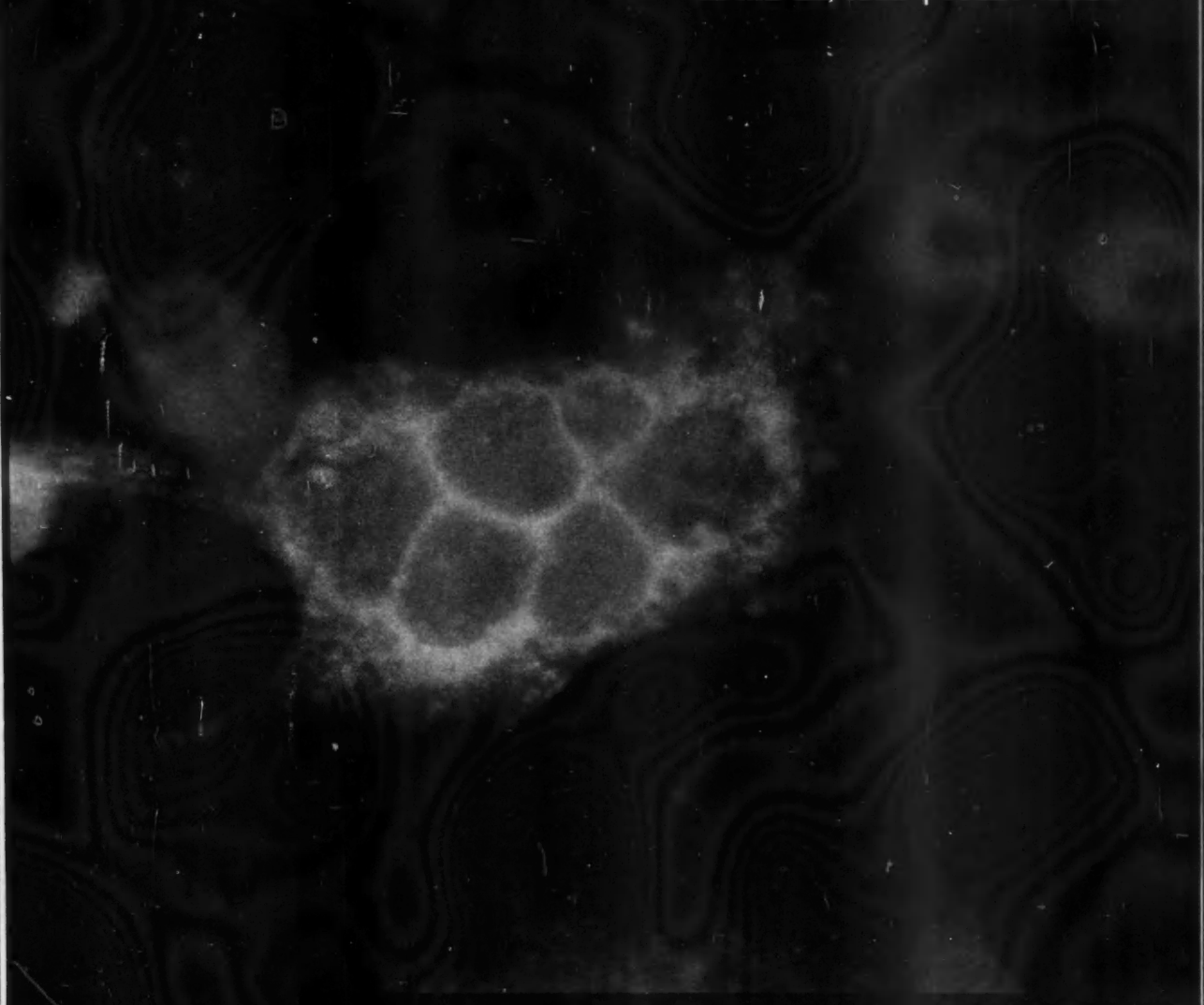
MEDICAL WORLD NEWS

APRIL 22, 1960 | FIRST ISSUE



Diagnosis by Fluorescence

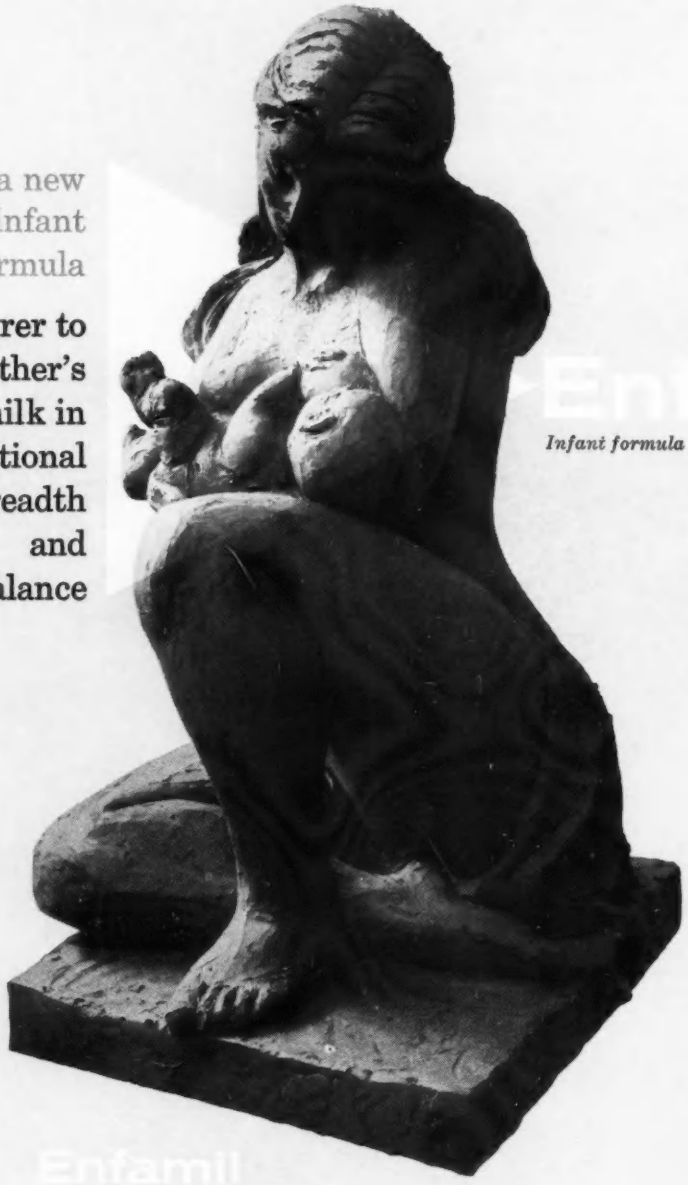
SHOWDOWN ON THE FORAND BILL

NEW OUTLOOK ON CANCER

OUNTDOWN ON BLOOD CLOTS

a new
infant
formula

nearer to mother's milk in nutritional breadth and balance



Enfamil*

Infant formula

Enfamil

NEARER to mother's milk . . . in caloric distribution of protein, fat and carbohydrate
NEARER to mother's milk . . . in vitamin pattern
(vitamin D added in accordance with NRC recommendations)
NEARER to mother's milk . . . in osmolar load
ENFAMIL IS ALMOST IDENTICAL to mother's milk in . . .
- ratio of unsaturated to saturated fatty acids
- absence of measurable curd tension . . . enhances digestibility

Enfamil contains oleo and vegetable fats . . . does not result in sour regurgitation

*Trademark

Mead Johnson
Symbol of service in medicine

but she needs **your** help **to plan her family**

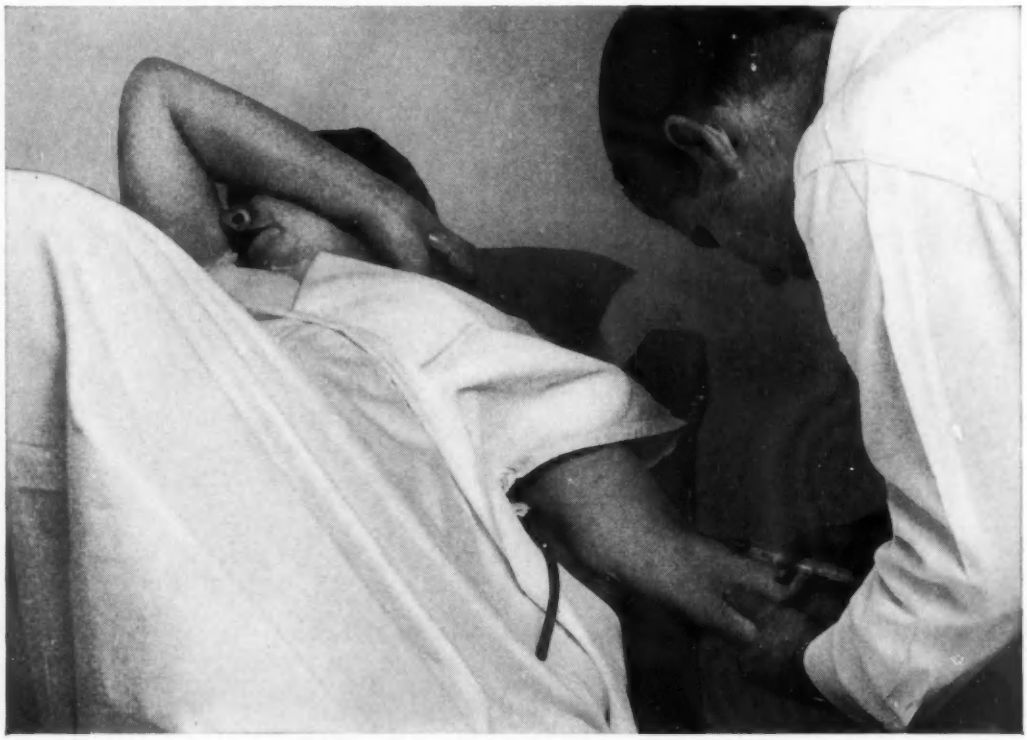
Delfen®
VAGINAL CREAM
THE MODERN CHEMICAL SPERMICIDE

Preceptin®
VAGINAL GEL
THE SPERMICIDAL GEL WITH BUILT-IN BARRIER

PRESCRIBED WITH CONFIDENCE FOR SIMPLE, EFFECTIVE CONTRACEPTION

in Gynecologic Bleeding

Control hemorrhage promptly & safely



with "PREMARIN" INTRAVENOUS

the physiologic hemostat

Rapid control of functional uterine bleeding with "Premarin" Intravenous is especially valuable in the exsanguinated patient and in young girls when curettage is not feasible.[1] "The acutely hemorrhaging patient can also be benefited by intravenously administered estrogen, no matter what the underlying cause, by preventing further shock and tiding the patient over...."[2]

Over 1,500,000 "Premarin" Intravenous injections have been given to date without a single report of toxicity — to control spontaneous hemorrhage, and to minimize blood loss during and after surgery.

"Premarin"® Intravenous (conjugated estrogens, equine) package contains one "Secule"® providing 20 mg., and one 5 cc. vial sterile diluent. (Dosage may be administered intramuscularly to small children.)

1. Randall, L. M. 2. Reich, W. J., Rubenstein, M. W., Nechtow, M. J., and Reich, J. B. (literature available on request).

AYERST LABORATORIES
New York 16, N. Y. Montreal, Canada

6019

VOL. 1, NO. 1

THE NEWSMAGAZINE OF MEDICINE

MEDICAL WORLD NEWS

APRIL 22, 1960

CONTENTS

On the cover:
Giant cells produced by measles virus, part of a fluorescent-antibody study on virus synthesis by Dr. Bernard Roizman of Johns Hopkins University. Story on p. 26.

Departments

MEDICAL WORLD NEWS is published bi-weekly by Medical World Publishing Company, Inc., 1230 Avenue of the Americas, New York 20, N. Y. Accepted as controlled circulation publication at Fairview, New Jersey. Subscription rates: $12.50 per year to non-professionals; $6.00 to non-qualifying physicians or persons in allied professions; $15.00 for foreign subscriptions; single copies, 60 cents.

in edema or

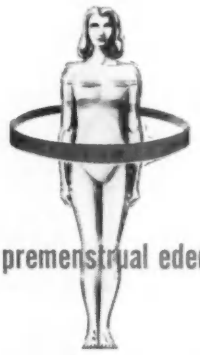
▪ more doctors are prescribing –
▪ more patients are receiving the benefits of –
▪ more clinical evidence exists for –

in congestive failure

"Chlorothiazide was given to 16 patients for a total of 295 patient-treatment days." "Chlorothiazide is a safe, oral diuretic with a clinical effect equal to or greater than a parenteral mercurial." Harvey, S. D. and DeGraff, A. C.: N. Y. State J. Med., **59**:1769, (May 1) 1959.

in hypertension

". . . our program has been one of polypharmacy in which we attempt to deplete body sodium with chlorothiazide. This drug is continued indefinitely as background medication for all antihypertensive drugs." Moyer, J. H.: Am. J. Cardiology, **3**:199, (Feb.) 1959.



in premenstrual edema

"Chlorothiazide is an excellent agent for relief of swelling and breast soreness associated with the premenstrual tension syndrome, since all patients [50] with these complaints were completely relieved." Keyes, J. W. and Berlacher, F. J.: J.A.M.A., **169**:109, (Jan. 10) 1959.

DOSAGE: Edema—One or two 500 mg. tablets DIURIL once or twice a day. Hypertension—One 250 mg. tablet DIURIL twice a day to one 500 mg. tablet DIURIL three times a day.

SUPPLIED: 250 mg. and 500 mg. scored tablets DIURIL (chlorothiazide) in bottles of 100 and 1,000.

DIURIL is a trademark of Merck & Co., Inc.

Additional information is available to the physician on request.

hypertension

DIURIL®

(CHLOROTHIAZIDE)

than for all other diuretic-antihypertensives combined!

in edema of pregnancy

"One hundred patients were treated with oral chlorothiazide." "In the presence of clinically detectable edema, the agent was universally effective." "Chlorothiazide is at present the most effective oral diuretic in pregnancy." Landesman, R., Ollstein, R. N. and Quinton, E. J.: N. Y. State J. Med., **59**:66, (Jan. 1) 1959.

in cirrhosis with ascites

"All three of the patients with Laennec's cirrhosis, ascites and edema had a favorable response, with a mean weight loss of 8 lbs., during the five-day treatment period with a slight decrease in edema." Castle, C. N., Conrad, J. K. and Hecht, H. H.: Arch. Int. Med., **103**:415, (March) 1959.

in renal edema

"In a study of 10 patients with the nephrotic syndrome associated with various types of renal disease, orally administered chlorothiazide was a successful, and sometimes dramatic, diuretic agent." Burch, G. E. and White, M. A., Jr.: Arch. Int. Med., **103**:369, (March) 1959.

MSD MERCK SHARP & DOHME
Division of Merck & Co., Inc., Philadelphia 1, Pa.

LATE NEWS

HEALTH INSURANCE STUDY SHOWS BOOST IN PAYMENTS

Voluntary health insurance benefits in 1957-58 were double the amount five years before, the Health Information Foundation reports.

The total: $3.1 billion. But while this figure doubled, the increase for the average individual family was 78 per cent higher — because families with large medical bills got much bigger benefits, while low-spending families were not as well covered as they had been in 1952-53.

From interviews with both insured and the non-insured, HIF also learned that insurance benefits now cover one-fourth of the average insured family's total health bill, compared to 19 per cent in 1952-53. Families with health costs of $1,000 and over got the best boost; they received $572 in benefits compared to only $362 previously. Families spending between $750 and $1,000 got $257, compared to $204.

VEIN GRAFTS REPAIR DEFECTIVE EARDRUMS

Swifter healing through use of vein grafts to repair perforated eardrums has been reported by Dr. Harold G. Tabb, chairman of the Department of Otolaryngology, Tulane University School of Medicine. The technique has been used successfully in 20 cases; the average time of healing, two weeks.

A half-inch section of vein is taken from a hand or foot, slit and opened into a rectangular patch. The patch is used to cover the perforation from the undersurface of the ear drum, Dr. Tabb told the Southern sectional meeting of the Triological Society of New Orleans.

The blood vessel tissue apparently attracts a blood supply to the edges of the perforation, and thus stimulates the growth of new tissue to close the opening naturally. The technique was suggested to Dr. Tabb by the work of Dr. John Shea of the University of Tennessee, Memphis.

THE WELL MAY BE NOT SO VERY WELL

Disease or abnormalities were found in 91.8 per cent of 10,709 supposedly well individuals, according to a 12-year survey by the Tulane University Cancer Detection Clinic in New Orleans.

Some of the diagnostic findings, as reported by Dr. Joseph E. Schenthal, director of the Clinic: Cancer in 77 persons; benign tumors, predominantly of the skin, breast and cervix, 444 cases; heart disease, 804 cases; vascular disease, 1,302 cases. Gynecologic abnormalities were diagnosed in 65.3 per cent, with diseases of the cervix making up about 75 per cent of these patients.

None of those examined had been under treatment for any disease, or had been examined by a physician for at least six months. The majority of those examined — 59 per cent — were between 30 and 49 years of age.

TECHNIQUE FORECASTS PELVIC CANCER OUTCOME

A new technique developed at the University of California Medical Center gives a 90% accurate forecast of the outcome of radiation therapy for vaginal cancer. Predictions are based on how a patient's cells and tissues, both normal and malignant, respond to radiation.

The technique, developed by Drs. James A. Merrill and David A. Wood, requires that biopsies and fluid smears be taken weekly from cancerous areas during radiation therapy. The prognosis is considered good if microscopic examination indicates that the patient's normal and cancerous cells respond to radiation with similar frequency and in the same degree. If not, the patient is in trouble.

Now, three years after the start, and a year after the termination of the study, almost all patients with a predicted poor outcome have died or are in serious condition. Ninety per cent of those expected to respond now apparently are well. In the remaining 10%, the disease is still confined to the pelvis.

FRESH PLATELETS AID THROMBOCYTOPENICS

Fresh platelets transfused into recipients with thrombocytopenia survive normally unless the recipients have a factor that destroys platelets, according to studies made by Dr. Julius R. Krevans, assistant professor of medicine, Johns Hopkins University and Hospital, Baltimore.

Dr. Krevans, speaking in Detroit at an international symposium on platelets sponsored by the Henry Ford Hospital, pointed out that the ability of stored platelets to survive is inversely related to time of storage.

He described a case in which fresh platelet-rich plasma from a donor with thrombocythemia was transfused into a woman with chronic idiopathic thrombocytopenic purpura. Immediately after transfusion it rose to 495,000 per mm. Thirty minutes after the transfusion, the patient developed a chill and fever, her blood pressure dropped and her platelet count fell to 137,000 per mm. Three hours later her platelet count was down to 77,000, and within three days the count was 5,000 per mm.

"The destruction of fresh platelets transfused into this recipient was evident in the rapid fall in platelet counts and in the clinical reaction which followed the transfusion," Dr. Krevans said. Prior to the transfusion, he added, a study of the woman's serum revealed no anti-platelet substance.

SKIN-LEVEL COLOSTOMY ADVANTAGES OUTLINED

The case for skin-level colostomy, based on results of 53 operations at the Ochsner Clinic was detailed by Dr. Patrick Hanley at Southeastern Surgical Congress in New Orleans.

Some major advantages, he noted, are that this operation is not esthetically repulsive to the patient in the troublesome immediate post operative period, and he may be taught at an early date to accept responsibility for routine emptying of the colon.

"Most patients are hesitant and unwilling to accept management of a colonic stoma that protrudes above the skin level, because of the severe edema and sero-purulent exudate over the surface of the exposed colon," he said.

"The greatest advantage is the primary healing of mucocutaneous anastamoses and absence of inflammatory scarring. With skin level colostomy digital dilation of the stoma is unnecessary."

Forty-one of the 53 colostomy patients had malignant lesions of the rectum and anus. Five had benign lesions and seven required revision because of stenosis of previous colonic stomas. Follow-up for six months to four years on 48 patients showed that 43 had good functioning colonic stomas. Sten-

osis developed in two cases — as a result of the "irritable bowel" syndrome, and paracolostomy hernias were found in three.

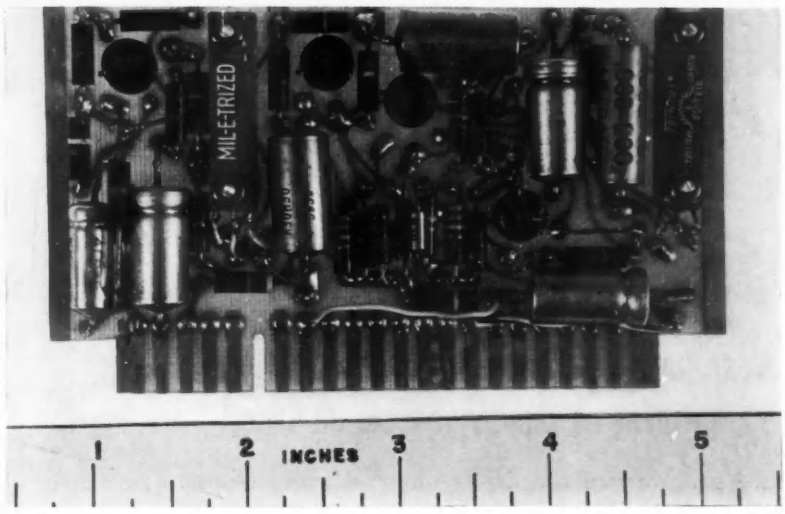
ADVANCED CERVICAL CANCER CAN BE EFFECTIVELY TREATED

Emphasis on early diagnosis of cervical cancer is essential, but it should not blur the fact that even advanced lesions may be treated effectively, according to Drs. David G. Decker and Martin Van Herik of Rochester, Minn.

Drs. Decker and Van Herik made follow-up studies of 1,143 patients who received definitive radiation treatment — radium implants and x-ray or Cobalt-60 irradiation — between 1940 and 1949. The overall survival rate was 49 per cent for five years and 40 per cent for ten years, they told the 42nd annual meeting of The American Radium Society in San Juan, Puerto Rico.

Further improvement in both surgical and radiation techniques for treating the disease is entirely possible, they said, adding that new data might come from a more thorough study of patients already treated.

In another report, Dr. Norman Simon, consultant to the medical division, Oak Ridge Institute of Nuclear Studies, described follow-up of more than 71,000 women with cancer of the cervix. He concluded that radium treatment does not induce an increase in the incidence of leukemia among the survivors. Among the 71,000 treated at 36 medical centers throughout the world, there were 12 leukemias that may have been associated with radiation, in addition to four cases of chronic lymphatic leukemia. Thus leukemia risk for treated women was estimated at 62 to 116 cases per million, essentially the same as the leukemia rate in nonirradiated women of similar ages in the United States and Great Britain.



POCKET SIZED EKG AMPLIFIER TRACKS MAN IN SPACE

The lilliputian EKG amplifier, which fits into a space capsule for a check on man's reaction to life "out there," is a forerunner to diminutive EKG machines for the office. Engineers who exhibited it at the convention of the Institute of Radio Engineers say they are currently perfecting a one-third smaller amplifier, as well as other reduced-sized components. Thus it is feasible to make an EKG small enough to slip into a doctor's bag.

Also in the mill is a "biopack," a small box loaded with electronic equipment which would continuously monitor EKG, blood pressure, body temperature and other physiological variables on critically ill patients. Impulses will be fed into an alarm system or onto a visual screen, warning nurses and physicians of vital changes in a patient's condition.

FIBRINOLYTIC DRUGS CALLED READY FOR USE

Fibrinolytic agents are innocuous, can be controlled and are ready for clinical trial, Dr. Eugene E. Cliffton told a special Symposium on Fibrinolysis, sponsored by the Sloan-Kettering Institute for Cancer Research.

To prove his point, the Institute investigator presented a summary of studies with 237 patients who received either fibrinolysin or streptokinase during 1959. His patients had a variety of clots, including cerebral and coronary thromboses, pulmonary emboli, arterial thrombi and emboli and venous thromboses.

Not one of these patients showed a serious reaction to the drugs, Dr. Cliffton declared. Slight temperature rises were recorded in 27% of the patients, but hypotension, once a frequent problem, was almost unseen. Bleeding, which might be expected, actually occurred in only four patients and was serious in only one.

Results of therapy were "excellent" in 45 patients in whom venous thromboses were of less than five days duration. Results on clots lodged in vessels of the heart, brain and lungs are still inconclusive. Now needed, Dr. Cliffton stressed, are extensive clinical studies that will clarify the diagnostic problems inevitably linked with intravascular clotting, and also set the standards for evaluating the effectiveness of fibrinolysin and streptokinase against clots wherever they occur in the body.

Among the drugs used in his study was *Thrombolysin,* now being prepared for marketing by Merck.

Dr. Cliffton's findings were substantiated by work at the Roswell Park Memorial Institute, Buffalo. Dr. Julian L. Ambrus reported testing eight fibrinolytic preparations on 184 patients with vascular clots of the brain, heart, lungs and legs. No serious reaction occurred with any preparation tested. Dr. Ambrus pointed out that streptokinase-type activators have limited use since patients on these agents develop high antibody levels within 10 days—which gives therapy only a one-shot chance. To avoid this limitation, Dr. Ambrus' group is studying urokinase activators. They said that they have high hopes for a urokinase activator now being developed by Parke, Davis.

ILOSONE® WORKS in STAPH. INFECTIONS

"In our hands it has been particularly helpful in the treatment of staphylococcic disease."[1]

In difficult staph. infections, a decisive response may be obtained with Ilosone in a high percentage of cases.

In a study[1] of 105 patients, sixty-four of whom had *Staphylococcus aureus* infections, good results were obtained with Ilosone in 94 percent. Ten subjects had previously failed to respond to other forms of chemotherapy. The authors concluded that Ilosone ". . . is useful in treatment of a number of common infections and has been effective in treatment of a number of less common and more serious infections. . . . In our hands it has been particularly helpful in the treatment of staphylococcic disease."

Ilosone is available in **Pulvules®**, 125 mg. and 250 mg.; Lauryl Sulfate **125 Suspension,** 125 mg. (base equiv.) per 5-cc. tsp.; and Lauryl Sulfate **Drops,** 5 mg. (base equiv.) per drop. Usual dosage for adults and children over fifty pounds is 250 mg. every six hours.

1. Smith, I. M., and Soderstrom, W. H.: J. A. M. A., *170*:184 (May 9), 1959.

Ilosone® (propionyl erythromycin ester, Lilly)

ELI LILLY AND COMPANY • INDIANAPOLIS 6, INDIANA, U. S. A.

032535

OUTLOOK

- **Unique background-radiation study to be made**
- **Fate of Salk laboratory up to San Diego voters**

The most comprehensive study yet attempted of the effects of environmental radiation on the health of a large population is about to get under way in San Juan County, New Mexico. Earlier studies had shown that radioactivity from the Animas River—site of the largest uranium producing facility in the country—has been higher than elsewhere in the U. S. Approximately 100 families—400 individuals—will be minutely studied by teams of federal and state physicians and other scientists. Cooperating are HEW, the county health department and the county medical society.

A series of "super" clinical research units for ultra-intensive study of patients are to be established in six university medical centers around the nation. Congress put up $3 million last year to get the program underway, and NIH experts, who have been working with research groups, are all set to go. To start, there will be units concerned with cancer, heart disease, neurology and mental health, and drug evaluation. They'll have special beds, nurses, dietary care, and laboratory facilities for metabolic and biochemical studies.

A new hemostatic dressing, which is absorbed as healing takes place, is being readied for the market. Used in over 300 test cases, the regenerated cellulose material was found to adhere readily to the bleeding surface, becoming darker as hemostasis took place. *Surgicel* (Johnson & Johnson) can either be molded to shape or applied in single or double layers as a wad or packing. Also promised: material for dental surgery, where it is expected to be useful since it controls bleeding even in hemophiliacs.

All new applicants for a driver's license in Pennsylvania—and those first licensed before 1924—will have to pass a physical as well as the standard driving test. This is the result of a new state law to take effect later this year. Physicals may be given by any doctor, and license refused if he finds: fixed blood pressure of 180/100 or above with complications; 20/70 or less vision in the better eye with correction; shortness of breath on slight exertion; chronic alcoholism or narcotic addiction; uncontrolled diabetes; any neurological disorder preventing "reasonable" control of a vehicle; any condition causing repeated lapse of consciousness; or loss of the use of both hands.

CONTINUED

Sweeping changes in Blue Cross plans are being urged in a report made for New York State's Superintendent of Insurance. The detailed study by Columbia University's Dr. Ray Trussell calls for: Curbs on payments to proprietary and non-accredited hospitals; outpatient laboratory and diagnostic provisions; uniform contracts; more control of planning, construction and utilization of hospitals.

First results with a rheumatic fever vaccine are about to be reported. The new, experimental vaccine, developed at Northwestern University, is being given to children who have already recovered from "strep throat," but whose titers to the bacterium have dropped. So far, about 15 children have been inoculated with "very encouraging results."

The fate of Dr. Jonas Salk's proposed biological research laboratory rests with the citizens of San Diego. On June 7, they vote on whether to give the new institution a land-grant of 70 acres — 30 acres of which apparently is already earmarked for University of California expansion. If Salk gets the land, the National Foundation promises to give the laboratory a $10 million endowment and $1 million-a-year toward operating costs.

A new Department of History of Medicine and Science is to be established at Yale. Beginning in September, it will offer both graduate and undergraduate courses. Slated as Department Chairman is Dr. John F. Fulton, noted physiologist and Sterling Professor of the History of Medicine.

MEETINGS

Apr.	25-30	Am. Academy of Neurology, *Miami*
Apr.	30	Int'l Nat'l Congress on Vascular Disease of the Brain, *Miami*
Apr.	28-30	Am. Ass'n. of Pathologists and Bacteriologists, *Memphis*
Apr.	28-1	Hawaii Medical Association, *Honolulu*
May	1-2	Am. Society for Clinical Investigation, *Atlantic City*
May	1	Am. Federation for Clinical Research, *Atlantic City*
May	1-5	Society of American Bacteriologists, *Philadelphia*
May	2-11	Pan American Medical Association Congress, *Mexico City*
May	3	13th World Health Assembly, *Geneva*
May	3-4	Association of American Physicians, *Atlantic City*
May	3-5	Society of Pediatric Research, *Swampscott, Mass.*
May	5-6	American Pediatric Society, *Swampscott, Mass.*
May	5-8	Student American Medical Association, *Los Angeles*
May	9-11	Aerospace Medical Assoc., *Bal Harbour, Fla.*
May	9-13	American Psychiatric Assoc., *Atlantic City*
May	11-13	American Ass'n. for Thoracic Surgery, *Miami*
May	11-13	American Ass'n. of Genito-Urinary Surgeons, *Dearborn, Mich.*

MEDICAL WORLD NEWS

EDITOR
Morris Fishbein, M.D.

EDITORIAL ADVISORY BOARD
Harold S. Diehl, M.D.
Frank L. Horsfall, Jr., M.D.
Chester S. Keefer, M.D.
Irvine H. Page, M.D.
Howard A. Rusk, M.D.
Theodore R. Van Dellen, M.D.

EXECUTIVE EDITOR
William H. White

ASSOCIATE EDITORS
ARTICLES: Mae Rudolph
Robert Claiborne
Jean Watson
Edwin K. Zittell

CONTRIBUTING EDITORS: Wallace Croatman, Leonard Engel, John Foster, Alex Gordon, Jacqueline Seaver.

CORRESPONDENTS: *Ann Arbor,* William Bender, Jr.; *Atlanta,* Edwina Davis; *Buffalo,* Mildred Spencer; *Chicago,* Theodore Berland, Arthur Snider; *Detroit,* Jean Pearson; *Ft. Worth,* Blair Justice; *Kansas City,* Odom Fanning; *Louisville,* Robert Clark; *Milwaukee,* James C. Spaulding; *New Orleans,* John Wilds; *Oklahoma City,* Imogene Patrick; *Omaha,* Marcia Mickelsen; *Pittsburgh,* Albert Bloom; *Philadelphia,* Pierre Fraley; *San Francisco,* George Dusheck; *St. Louis,* Patricia Page; *Seattle,* Hill Williams; *Mexico City,* Emil Zubryn; *London,* Neil Herzog; *Stockholm,* Per Bergstom.

ART DIRECTOR
Christopher Magalos

PRODUCTION
Robert Relles

ASST. TO EXECUTIVE EDITOR
Reba Berlin

SALES DIRECTOR
William J. Egan, Jr.

EASTERN REPRESENTATIVE
Peter H. Lewis

PUBLISHER
Maxwell M. Geffen

SUBSCRIPTION RATES: $12.50 per year to non-professionals; $6.00 to non-qualifying physicians or persons in allied professions; $15.00 foreign subscriptions; single copies, 60 cents.

CHANGE OF ADDRESS: Notification should be sent to MEDICAL WORLD NEWS, 1230 Avenue of the Americas, New York 20, N. Y. Please give both old and new addresses, including zone numbers, if any.

Why a new medical magazine?

You may be thinking that just about the last thing the medical world needs is another professional magazine. Your mailbox is swollen to the bursting point, and no one is more aware of this than the medical journalist. As a physician, you always have a remedy: generous use of the waste basket. But the publisher must face the situation more philosophically, look to its causes, and try to shape the future constructively.

Only a new publication unusual in scope and purpose could possibly justify its entrance onto this already crowded stage. MEDICAL WORLD NEWS proposes to offer a new, unique and clear channel of communication between the profession and the world around it, and to set new standards of accuracy and disclosure, covering every phase of medical journalism.

In order to approach these objectives, it is obvious that our pages will have to be genuinely free from the restrictions and limitations which professional organizations and other special interests necessarily live with and reflect. As an independent publication, we will be free to report any and all news as well as to assume the obligation of freely discussing the important, controversial issues confronting the individual physician and the profession as a whole. In this way, MEDICAL WORLD NEWS will bring a new dimension to medical journalism.

I believe you will find that MEDICAL WORLD NEWS has been designed and edited exclusively for the physician who wants to keep abreast of the significant, up-to-the-minute news of therapy, research, practice, pharmacology, economics, public affairs, highlights of other periodicals, and news of other doctors. No other medium in the field will service the physician so completely—as a professional man, a human being, a citizen of America and the world.

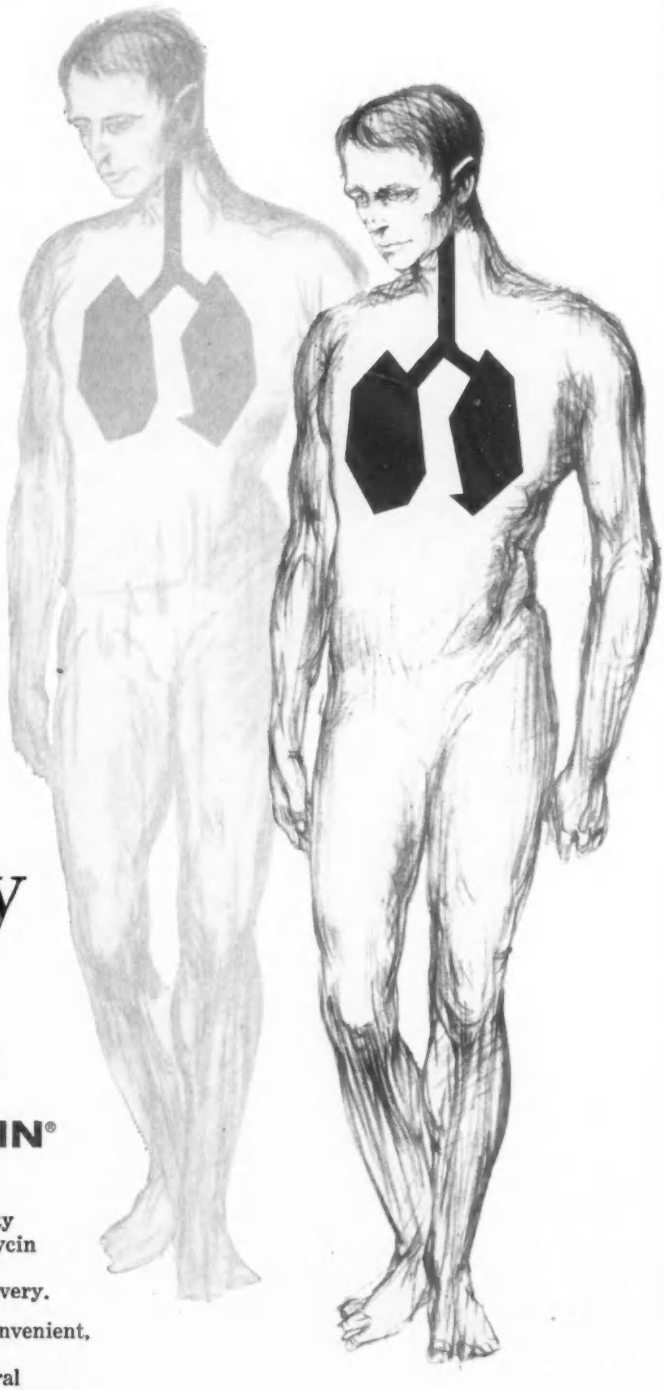
As one of the 150,000 busy doctors of America, you will find this biweekly magazine especially designed to facilitate communication and easy reading. It has a limited number of pages, lies flat, uses color generously throughout, has no distracting inserts, and is written in the fast-paced, readable style of the modern general news magazine.

In exploring this new field of medical journalism, we are undertaking an arduous task—and I am well aware that we have a long hill to climb. Please accep. this first offering as an augury of even better things to come. As week follows week, the tempo and significance of our times will be reflected in these pages.

I will be grateful for your comments and suggestions for making MEDICAL WORLD NEWS an increasingly useful tool in the practice of your profession.

M M Geffen

Publisher



the margin of difference in respiratory tract infections

COSA-TERRAMYCIN®

oxytetracycline with glucosamine

CAPSULES

The greater effectiveness, proven safety and outstanding toleration of Terramycin provide a margin of difference for swift response and uncomplicated recovery.

This margin is further extended by convenient, economical, ready-to-use Terramycin Intramuscular Solution followed by oral Cosa-Terramycin—the compatible, coordinated course of broad-spectrum therapy worthy of consideration for your next patient with a respiratory infection.

Supply: Cosa-Terramycin Capsules—250 mg. and 125 mg. New Cosa-Terrabon* Oral Suspension—125 mg./5 cc. (tsp.), preconstituted, fruit flavored, bottles of 2 oz. and 1 pint. New Cosa-Terrabon Pediatric Drops—100 mg./cc. (5 mg./drop), preconstituted, fruit flavored, 10 cc. bottle with calibrated plastic dropper. Terramycin Intramuscular Solution†—ampules of 100 mg./2 cc. and 250 mg./2 cc.

Terramycin is also available in a variety of topical and local forms to meet specific therapeutic requirements.

*Trademark
†Contains 2% Xylocaine® (lidocaine), registered trademark of Astra Pharmaceutical Products, Inc.

Pfizer *Science for the world's well-being™*

Pfizer Laboratories, Div., Chas. Pfizer & Co., Inc.
Brooklyn 6, N. Y.

MEDICAL WORLD NEWS
APRIL 22, 1960 FIRST ISSUE

SHOWDOWN ON FEDERAL CARE FOR THE AGED

The pressures of election-year politics and 16 million elderly voters are forcing both parties to support 'positive' programs

The battle over federal health insurance for the aged is racing to a showdown in Congress and the betting is now that some kind of legislation will pass after all. The only question is when and what form it will take.

Three possible approaches now dominate the debate: a system of federal-state subsidies, a Forand-type program tied in with Social Security or a public assistance grant plan for the indigent-aged only.

As late as the last week in March, it still looked as if there would be no action in Congress this session. Then almost overnight the picture dramatically changed, making health care of the aged a major political issue.

First, the Administration stated that it was not prepared to back any specific proposed plan or to suggest an alternative of its own. Then, the House Ways & Means Committee, with conservative Republicans and southern Democrats joining forces, rejected the Forand bill.

There was an immediate reaction. Unions staged mass protests across the country and Congress was deluged with an avalanche of mail — mostly stimulated by the AFL-CIO.

As a result, conservative Democratic leaders in Congress realized they had to make some move or risk the anger of 16 million elderly voters. The Administration, prodded by Health Education and Welfare Secretary Arthur Flemming, and aided by Vice-President Nixon, came to the same conclusion.

At the moment, the Administration is lined up behind Sec. Flemming's proposal, which calls for federal-state subsidies to help the low-income aged buy their own insurance against "catastrophic" illnesses. This formula flatly rejects the "compulsory" features of a Social Security-type system.

FLEMMING testifies before Congress.

The three announced Democratic candidates are stumping for Forand-type legislation. Liberal Democrats are investigating a compromise which they insist must retain the Forand principle. And Liberal Republicans, led in the Senate by Jacob Javits (R-N.Y.), have their own federal-state subsidy plan.

A key element in the entire picture has been the Administration; everything depended on what it did.

Nearly a year ago, Sec. Flemming began exploring solutions, and several times announced confidently that the Administration would soon shape up its "positive program."

Then in February, Eisenhower casually suggested at a press conference that the Administration was thinking of recommending a ¼ of 1% hike in Social Security taxes to finance a plan.

High AMA officials hurried to the White House, fearful that the Administration might succumb to one of the worst features of the Forand bill—its use of Social Security as a vehicle.

These forays were not reassuring,

CONTINUED

nor were the reports of Sec. Fleming's five secret draft proposals.

Finally the Ways & Means Committee hearings opened. Flemming was the lead-off witness on Monday — and he had come from a defeat at the hands of Budget and White House. All five plans had been rejected.

In his testimony, Flemming confessed that the Administration had still not arrived at a decision. Then he pleaded for — and got — a nine-day reprieve from the Committee on the grounds that he was working on a new proposal which he hoped the Administration might support. This plan, hurriedly worked out, called for federal-state subsidies to help the aged buy their own catastrophic illness coverage from voluntary and private plans.

The showdown came at a secret White House meeting on the Friday before Flemming was due to reappear before the Ways & Means Committee.

The President reportedly voiced strong opposition to any extension of Social Security for aged-medical-care purposes. And he seemed uncertain about Flemming's sketchy new subsidy program. As the meeting ended, Flemming still had no go-ahead.

On Wednesday, Flemming went before the Ways & Means Committee and read a statement reporting that, "We have not reached a conclusion. . . ." The Administration, he added, wants to begin immediately to consult further with experts in and out of government. "It is, of course, not possible to predict how long it will take."

As he concluded, there was a sharp exchange between him and the Democratic committeemen.

Rep. Forand, second-ranking Democrat on the Committee, launched the questioning by demanding that Flemming admit he had no program. After lengthy sparring, the Secretary conceded this but snapped: "Frankly, I am not going to apologize for the fact that these issues have not been resolved."

The Secretary insisted, however, that the effort had been "intensified" in recent weeks. He was then pressed to say whether he planned waiting until next year's White House Conference on Aging.

"I have developed no timetable on this and I see no possibility of developing one," he replied. "I can only say we are going ahead with urgency."

Rep. Hale Boggs (D-La.) jumped into the exchange, demanding to know "what happened at the White House" — referring to the showdown debate the week before.

Flemming pleaded the executive privilege against revealing conversations within the White House.

"Well," continued Rep. Boggs, "had the Vice-President exerted any pressure at the White House?"

"You had best ask the Vice-President," countered Flemming.

"I note that the Vice-President was credited with breaking the log jam regarding the Administration's position," Boggs gibed. "Now, Mr. Secretary, has this log jam been broken?"

In the outburst of laughter, the Secretary never got to answer.

Flemming confided that the Administration was studying the federal-state subsidy idea. In attempting to arrive at an acceptable formula, he said it would be guided by six principles:

1. There should be no compulsion on anyone to join any insurance plan.
2. There should be no action by anyone that would tend to stifle private initiative in the health insurance field.
3. We should strive to strengthen and stimulate our existing private system so as to foster additional progress.
4. We should preserve and strengthen the private relationships which now characterize the rendering of health care services.
5. All aged persons should have the opportunity to participate in any program that might be developed.
6. There should be available to the aged — particularly in the low-income groups — protection against the financially catastrophic cost of long-term and other very expensive illnesses.

EISENHOWER GIVES VIEWS AT PRESS CONFERENCE

I have, from the time this subject was discussed with me very thoroughly and exhaustively away back in 1951 and '52, I have been against compulsory insurance as a very definite step in socialized medicine. I don't believe in it.

At the same time there has been a great deal of progress made in this whole field. The numbers of people that have come under the voluntary health insurance programs has been very great, increasing rapidly, and we still leave with ourselves, however, the problem of those people who are not indigent, who are taken care of under that state assistance act, I forget the name of it, but the people who are just too low-incomed to take care of these catastrophic illnesses.

Now, I think we have got to develop a voluntary program and as a matter of fact in talking, in all our discussions inside the Cabinet, that is exactly what I've instructed the HEW (Health, Education and Welfare) Secretary to do, to get all the people that are interested, the insurance companies, the doctors, the older people, everybody that seems to have a real worthwhile opinion and conviction on this thing, get them in and work out what should be the responsibility of the individual, and the city and the state and, finally, the Federal Government.

Now, I want to point out at this time there is not a single state that has a program in this field. It seems to me that the problem does have enough of the local in its character that they should be just as interested as anybody else. Now, we are trying to develop a program that will show exactly where the federal government, or federal responsibility in this field should begin, and where it should end.

CANCER STUDIES POINT UP NEW PROGRESS

At an American Cancer Society seminar, leading investigators report on what's new in malignant disease research. Promising findings include human antibodies that protect mice against leukemia, a possible chemical difference between normal and cancerous cells, results with autogenous 'vaccines'

Once a year, the American Cancer Society gathers together a large group of the nation's brightest figures in cancer research and exposes them to several days of intensive questioning by science writers.

What emerges is a preview of the latest steps in cancer control. During the past weeks, in Louisville, writers learned of these new developments:

Human antibodies that protect mice against leukemia, autogenous vaccines that appear to benefit some human cancer patients and a hormone-like substance which may represent the long-sought qualitative difference between normal and cancerous tissues. And one panel of the seminar, grappling with the problem of carcinogens in the environment, heard the charge that the application of effective techniques for controlling environmental cancer was being blocked by industrial interests.

A dominant theme of the meeting was the prospect of cancer control through immunology or increased host resistance. Half a dozen experts endorsed the view that some or all cancers are caused by viruses and can ultimately be controlled by procedures directed against the causative organism. Dr. Leon Dmochowski, of M.D. Anderson Hospital, Houston, Texas, has actually observed with the electron microscope virus-like particles in tis-

CONTINUED

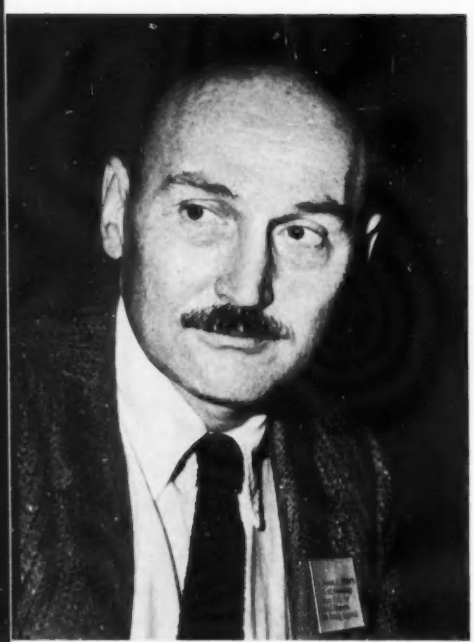
VIROLOGIST: Leon L. Dmochowski, of M.D. Anderson Hospital and Tumor Institute.

WRITERS: Alton Blakeslee, AP, Delos Smith, UPI, and Mary McGary, Columbus Dispatch, with Dr. Paul Talay, University of Chicago (far l.).

sues from cases of Hodgkin's disease, lymphatic leukemia, acute myeloid leukemia and lymphosarcoma. Dr. Sarah Stewart, of the National Cancer Institute, has found that extracts from human cancers and from the urine of cancer patients can produce cancer-like changes in human cell cultures.

The virus hypothesis has already led to significant immunological developments. Extracts from the brains of dead human leukemia victims have been found to induce disease in a susceptible strain of mice. By injecting small quantities of the brain extract subcutaneously into human volunteers, Dr. Steven O. Schwartz of the Hektoen Institute for Medical Research of the Cook County Hospital, Chicago, was able to produce a serum which protected the same strain of mice against leukemia. The human volunteers showed no ill effects.

A promising allied development reported by several investigators is the use of "vaccines" derived from the cancerous tissues of the patient himself. Thus a group of workers at the Veterans Administration Hospital in Dallas, Texas, found that such autogenous vaccines temporarily benefited a number of terminal patients. Several showed a sharp rise in serum antibodies after vaccination; in one case, the rise coincided with "a terrific reaction" in the cancer tissues which had invaded the patient's face and neck. The tissues first swelled and then sloughed off, with objective improvement. Death came later from other causes. Dr. Russell H. Wilson, one of the Dallas group, suggested that serums prepared from excised tumors might inhibit metastases.



IMMUNOLOGIST Steven O. Schwartz, of Hektoen Institute for Medical Research.

Several other speakers, however, cautioned that knotty problems still lie ahead in devising cancer vaccines, since no two cancers may be quite alike. Dr. Dmochowski compared cancer viruses to poliovirus, which produces clinical disease in only a few of the thousands of people it invades.

HOST RESISTANCE

Dr. George E. Moore, director of Roswell Park Memorial Institute, Buffalo, N. Y., stressed the role of resistance factors in the host, citing the rare spontaneous regressions of tumors, the sudden appearance of metastases years after surgical removal of a malignancy, and the exfoliation of tumor cells into the blood stream and lymphatics without producing a comparable number of metastases. He noted, as did Dr. Robert W. Wissler of the University of Chicago, that destruction of *all* cancerous cells may not be essential to the patient's survival. Some small cancers, said Dr. Wissler, can grow slowly in a nonvital spot for 30 to 50 years.

Drs. A. Clark Griffin and K. Yunoki, of the M. D. Anderson Hospital, may have turned up the long-sought qualitative difference between cancerous and normal cells. From several pounds of malignant tissue they isolated a few milligrams of three toxohormones — hormone-like substances which reduce the level of liver catalase. While two of these toxohormones are also found in normal tissues, the most active of them seems to occur only in malignancies, and has been found in all eight types of human cancers thus far examined. If this factor is proved truly unique to cancer cells, it opens up possibilities both for diagnosis and for the development of drugs or antibodies that will selectively attack malignant cells.

Another possible basic difference between normal and malignant cells has been found by Dr. Jerome Sachs of the Medical College of Virginia. Dr. Sachs, not yet 27, discovered that, after recovery from a virulent type of infectious hemolytic anemia, rats were immune to transplanted cancers to which they had formerly been susceptible. Serum from these animals can immunize other rats against six different rat cancers. Normal cells are not damaged. These findings, he believes, indicate that tumors contain a common antigen not present in normal tissues.

At a panel discussion on environmental cancer, Dr. Wilhelm C. Hueper of the National Cancer Institute bluntly charged that many American workers are being dangerously exposed to chemicals known to be carcinogenic in animals. Furthermore, some industrial firms have deliberately withheld the results of studies on environmental cancer among their employees. The principal barriers to the prevention of environmental cancer, he said, "are the continued lack of serious interest of the medical profession in the etiology of human cancers, the widespread inertia of public health agencies and the often obstructive attitude of industrial men."

As an example, he charged that though the rubber and dye industries had manufactured millions of pounds of aromatic amines known to produce bladder cancer, American scientific literature over the past 25 years contains only one brief report on the occurrence and number of such cancers and the types of workers involved. Recent studies on the carcinogenic activity of petroleum products, he continued, have not been made available to the medical profession at large. The same can be said of a host of other industrial carcinogens, such as asbestos, arsenic, chromates and nickel. In 1948, he said, he had advocated a thorough study of uranium miners in the Rocky Mountain region for evidence of lung cancer. But "a high official of the Atomic Energy Commission had called the idea 'nonsense.'"

Panelists agreed that the task of preventing carcinogens from getting into food and other products demands far more trained scientists, more funds, more knowledge of carcinogenesis and reliable, rapid methods of testing carcinogenicity.

Dr. Stuart Sessoms, chief of the Cancer Chemotherapy National Service Center, reported that some 110 new drugs are now undergoing clinical trial in a cooperative program involving more than 8,000 patients in 150 hospitals and clinics. One of the most interesting of these new pharmaceuticals is the compound azauridine. It has brought some temporary benefits to adults with acute monocytic leukemia and to children with acute leukemia, apparently with *no* side effects.

COUNT DOWN ON CLOTTING

DISCOVERY of vital blood coagulation factor is made by Dr. Walter Seegers.

A "kind of landmark in the history of blood coagulation" has just been achieved by a Wayne State University physiologist and his colleagues.

Ever since Donné first described the elusive blood platelets in 1842, the secret life of the platelets, of prothrombin and of thrombin, has tantalized investigators. Dr. Walter Seegers, Ph.D., chairman of the department of physiology and pharmacology at Wayne State's College of Medicine, has himself spent 25 years systematically prying into this world.

Now he has shown for the first time that prothrombin, which others have long thought only produces thrombin, actually produces other substances. Specifically, it produces a vital substance he calls autoprothrombin II. Autoprothrombin II is indeed potent. In tests on blood from two Type A hemophiliacs, it swiftly cut down the blood clotting time from 20 minutes to 28 seconds. Moreover, it worked even better on blood from type B hemophiliacs, Dr. Seegers told an international symposium on blood platelets in Detroit sponsored by the Henry Ford Hospital.

Six months ago, the 50-year-old Iowan and his co-workers began a series of experiments designed, ultimately, to produce fractions of autoprothrombin II (also called platelet cofactor II). Behind him were the years of step-by-step exploration of the activation of prothrombin. He had learned that a substance in platelets called platelet factor 3 activated the prothrombin.

From prothrombin comes, in turn, an activation product called autoprothrombin I, which aids in the generation of thrombin. Platelet factor 3 comes in again to produce autoprothrombin II, the new substance. With a combination of calcium, platelet factor 3, Ac-globulin and autoprothrombin II, prothrombin is converted into thrombin.

TIME-CONSUMING TASK

The process of obtaining the autoprothrombin II is a tedious one. It begins with blood from cows. This is diluted, acidified, and then absorbed in milk of magnesia. Next, carbon dioxide is blown in to decompose the mixture. It is then precipitated with ammonium sulfate. In Dr. Seeger's Detroit lab, Dr. Diethard Steichele prepared the bovine prothrombin; Dr. Eberhard Mammen made the autoprothrombin II from the prothrombin; Dr. Charles Harrison looked at it with the ultracentrifuge and determined it was a single component with a sedimentation constant of 3.7; William Thomas, a graduate student, determined that the N-terminal amino acid was proline; and finally Dr. J. Frederic Johnson invited two persons whom he knew to be hemophiliacs of type A to serve as subjects.

Dr. Seegers knew that his experiments on hemophiliac A blood would be, "a kind of landmark." And so on the day of the experiment, he asked eight investigators to predict the outcome.

"Seven of them believed there would be a correction of the clotting defect. They were all familiar with the papers from my laboratory and consequently this was not a fair sample. One said: 'Logically and according to popular views, there will be no affect, but I'm afraid there will be.' "

Why was he afraid? Dr. Seegers asked.

"Because we would then have to begin all over again with new experiments," was the reply.

Then came the tests. "We worked with plain glass surfaces and found the whole blood clotting times to be around 20 minutes. With 8 gamma of our preparation, this was reduced to four minutes, and with 400 gamma the blood was clotted solid in 30 seconds.

"Blood from the second hemophiliac clotted in 28 seconds."

Dr. Seegers hopes it will not be too long before autoprothrombin II is applied clinically. He believes this will be in about six months, because it takes considerable time and effort to get raw material and process it. Meanwhile, he and his coworkers can feel jubilant over a significant step in a perplexing field.

JUDGMENT DAY FOR FOREIGN GR

The anxious suspense is almost over for 6,500 foreign-trained doctors who took the certifying examination of the Educational Council for Foreign Medical Graduates, March 16. Next week they start finding out how well they made out.

For many of them the news will be good. About 45 per cent are expected to qualify for full certification. Another 25 per cent should earn temporary certificates good for two years. But the remaining 30 per cent —some 2,000 foreign graduates—are expected to fail.

The big question now is what the hospitals will do about the 2,000 who flunk out. Many hospitals claim they can't live without them. These same hospitals, however, may find themselves in worse trouble if they try to live *with* them.

Both the AMA and the AHA intend to take strong measures against any hospital that continues to use uncertified foreign graduates in their internship and residency program. The crackdown will begin July 1, although its full weight won't be felt until the beginning of next year.

According to the AMA Council on Medical Education and Hospitals, a hospital will face loss of approval of its training program if it uses foreign-trained interns and residents who don't meet at least one of these four requirements as of July 1:

- Have a full state license to practice.
- Be in their last six months of training.
- Hold a standard or temporary certificate as a result of passing the ECFMG exam.
- Have a contingent appointment based on their having been accepted for the next certifying examination which is scheduled to be held September 21, 1960.

Under this last provision, candidates who failed or didn't take the March test will get one more try at certification. But if they don't make it this time, their hospitals will have to drop them by next January 1. From 1961 on, all foreign-trained graduates will have to be certified abroad before they are accepted in an approved intern-residency program. Only then will they be allowed to apply for a five-year exchange-visitor visa.

The AMA ruling directly affects only about 1,400 hospitals with approved training programs, leaving 5,500 others to do as they please. The American Hospital Association, however, has served notice that it will add its weight to the AMA stand. Hospitals that refuse to drop uncertified

GRADS

Next week, 6,500 interns and residents who took the eight-hour certifying exam learn if their stay on hospital staffs is assured

foreign graduates will themselves be dropped from listing in the 1961 AHA directory. The Association ruling applies to foreign-trained doctors used in any "patient-treating capacity"—including house-staff members as well as interns and residents.

Medical and hospital leaders point out that loss of listing is something no hospital can afford. Once a hospital is dropped it automatically loses accreditation. Even if a hospital doesn't care about accreditation, it must worry about what the public will think when its listing is taken away. Moreover, there's the added economic fact that many insurance companies won't pay for patients treated in an unlisted hospital.

Most authorities predict that hospitals will *have* to abide by the rules even though this means shutting down some training programs. And after January 1 the uncertified foreign-schooled physician will have no other choice but to go back home.

Dr. Dean F. Smiley, executive director of the Educational Council concedes that the shortage of interns and residents in this country is likely to get worse before it gets better. But he thinks the long-range result will be to attract greater numbers of better-qualified foreign graduates.

Another likely result is that the AMA Council on Medical Education and Hospitals will apply stricter standards to intern and residency programs seeking approval. Of some 38,000 programs now approved, about 16 per cent are vacant, and the vacancy rate will rise to about 22 per cent if the foreign doctors failing the March 16th examination are subtracted from the total number of programs.

Nowhere is the situation more acute than in New York which has about 2,500 of the 8,500 foreign graduates now training in the U. S. There, 1,300 examinees—the largest group in the U. S.—took the test which consisted of 360 multiple-choice questions in English. One-tenth of them covered basic sciences; the remainder were clinical, including a half-hour case history. Selected by the ECFMG Examination Committee, the questions had previously been used in national and state board exams.

The same exam was given to the 6,500 candidates in the U. S. and 60 other countries. At stake was not only individual futures, but the immediate future of many of the nation's hospitals and their foreign trained staffs.

For a Sample Test of Twenty Questions, Turn the Page

TEST YOURSELF ON THESE 20 QUESTIONS FROM FOREIGN-GRADUATE EXAM

Give yourself five points for each correct answer, according to the key below. A score of 75 or better means you know at least as much as the fully-certified graduate; 70 means you rate a temporary certificate. If you get 65 or less, you'd better go abroad for a refresher course. For the answers see page 47.

1. All of the following are associated with prerenal azotemia, *except*

(a) Shock (b) Dehydration
(c) Pernicious vomiting (d) Multiple myeloma
(e) Gastrointestinal hemorrhage

Directions: Each group of the following questions consists of five lettered headings followed by a list of numbered words or phrases. For each numbered word or phrase, select one heading most closely related to it.

Questions 2-7.

(a) Quinidine (b) Theophylline
(c) Amyl nitrite (d) Papaverine
(e) Glyceryl trinitrate

2. Relaxes smooth muscle of the arterial system; causes fall in arterial pressure; commonly administered in tablets sublingually.

3. An opium alkaloid; direct vasodilator action; used in instances of coronary occlusion and peripheral vascular disease.

4. Commonly effective in relieving symptoms of bronchial asthma.

5. The best for quick therapy of cyanide poisoning.

6. Increases the contractile force of the heart and is diuretic.

7. Commonly used in auricular fibrillation.

Questions 8-15.

(a) Coarctation of the aorta
(b) Patent ductus arteriosus
(c) Tetralogy of Fallot
(d) Aortic vascular ring (e) Tricuspid atresia

8. Is benefitted by systemic-pulmonary artery anastomosis.

9. Most common congenital cyanotic heart disease.

10. Corrected by resection, end-to-end anastomosis.

11. Possible cause of dysphagia in children.

12. Wide pulse pressure.

13. Often associated with auricular septal defects.

14. A continuous murmur.

15. Hypertension in arms and hypotension in legs.

Directions: This section of the test consists of a case history, followed by a series of questions. Study the history and select the best answer to each question.

The patient is a 21-year-old white male with a complaint of malaise, cough and fever. The present illness had its onset ten days prior to admission with malaise and a non-productive cough, followed in 24 hours by a fever varying from 100 to 101 that has persisted up to the time of admission. On about the fourth day of illness the cough became more severe, producing scant amounts of white viscid sputum. Three days prior to admission, paroxysms of coughing began, sometimes followed by vomiting. Chilly sensations were noted but no frank shaking chills. Anterior parasternal pain on coughing has been present since the fifth day of illness.

On physical examination the temperature is 101; the pulse rate 110; the respiratory rate 32; and the blood pressure 108 systolic, 60 diastolic. The patient is well developed and well nourished, appears acutely but not chronically ill, and is dyspneic but not cyanotic.

Positive physical findings limited to the chest are as follows: Vocal and tactile fremitus and resonance are within normal limits. In the left axilla a few fine rales are heard and the bronchial quality of the sounds is increased, although the intensity is normal.

Blood findings are reported as follows: White blood count 3400 (polymorphonuclears 30%, lymphocytes 62%, monocytes 5%, eosinophiles 3%).

X-ray of the chest reveals an increase in the density of the perihilar markings with ill-defined areas of patchy, soft, increased radiodensity at both bases and in the upper left lung field.

16. Which is the most likely diagnosis?

(a) Tuberculosis (b) Pneumococcal pneumonia
(c) Primary atypical pneumonia
(d) Coccidioidomycosis (e) Bronchopneumonia

17. Which one of the following is the most likely additional physical finding?

(a) Splenomegaly (b) Signs of meningeal irritation (c) Pleural friction rub (d) Frequent changes in distribution of chest findings (e) Signs of frank lobar consolidation

18. Which one of the following laboratory findings is consistent with the diagnosis?

(a) Elevation and further increase of cold agglutinins (b) Positive blood culture (c) Marked leukocytosis with the beginning of recovery (d) Positive sputum examination (e) Positive skin test

19. Which is the therapy that would be given?

(a) Bed rest and streptomycin (b) Bed rest and penicillin (c) Streptomycin and para-aminosalicylic acid (d) Bed rest and aureomycin (chlortetracycline) (e) Psychotherapy and physical rehabilitation

20. Which of the following is the probable outcome of this disease if this patient is untreated?

(a) The fever will subside spontaneously by crisis (b) Recovery will be gradual, with relapse not unexpected (c) Empyema will develop (d) Residual fibrosis will appear with healing (e) Lung cavitation will not be unexpected.

ts of
sion,
d by
shak-
been

101;
blood
well
t not

re as
e are
es are
eased,

blood
ocytes

ensity
atchy,
upper

monia

monia
likely

al irri-
equent
gns of

ndings

ggluti-
Marked
Posi-
t
n?
ed rest
nosali-
ortetra-
litation
utcome

y crisis
unex-
esidual
vitation

D NEWS

The first specific aldosterone-blocking agent...

ALDACTONE™

effectively extends the medical control of edema or ascites. It introduces a new therapeutic principle in the treatment of...

CONGESTIVE HEART FAILURE • HEPATIC CIRRHOSIS
THE NEPHROTIC SYNDROME • IDIOPATHIC EDEMA

ALDACTONE introduces a new class of therapeutic agent, the aldosterone-blocking agent providing:

satisfactory relief of resistant or advanced edema even when all other agents, alone or in combination, are ineffective or are only partially effective.

A New Order of Therapeutic Activity

ALDACTONE acts by blocking the effect of aldosterone, the principal mineralocorticoid governing the reabsorption of sodium and water in the distal segment of the renal tubules.

By so doing Aldactone establishes a fundamentally new and effective approach to the control of edema or ascites, including edema resistant or unresponsive to conventional diuretic agents.

Further, because of its different site and mode of action in the renal tubules, Aldactone has a true, highly valuable synergistic activity when used with a mercurial or thiazide diuretic.

What Physicians May Expect of Aldactone

It is fully expected that Aldactone will change present medical concepts of the therapeutic limitations of managing edema. Many patients living in a greater or lesser state of edematous invalidism can now be edema-free. To others, gravely ill, Aldactone will be life-saving.

When used alone, Aldactone will produce a satisfactory diuresis in about half of those patients whose edema is resistant to conventional diuretic agents.

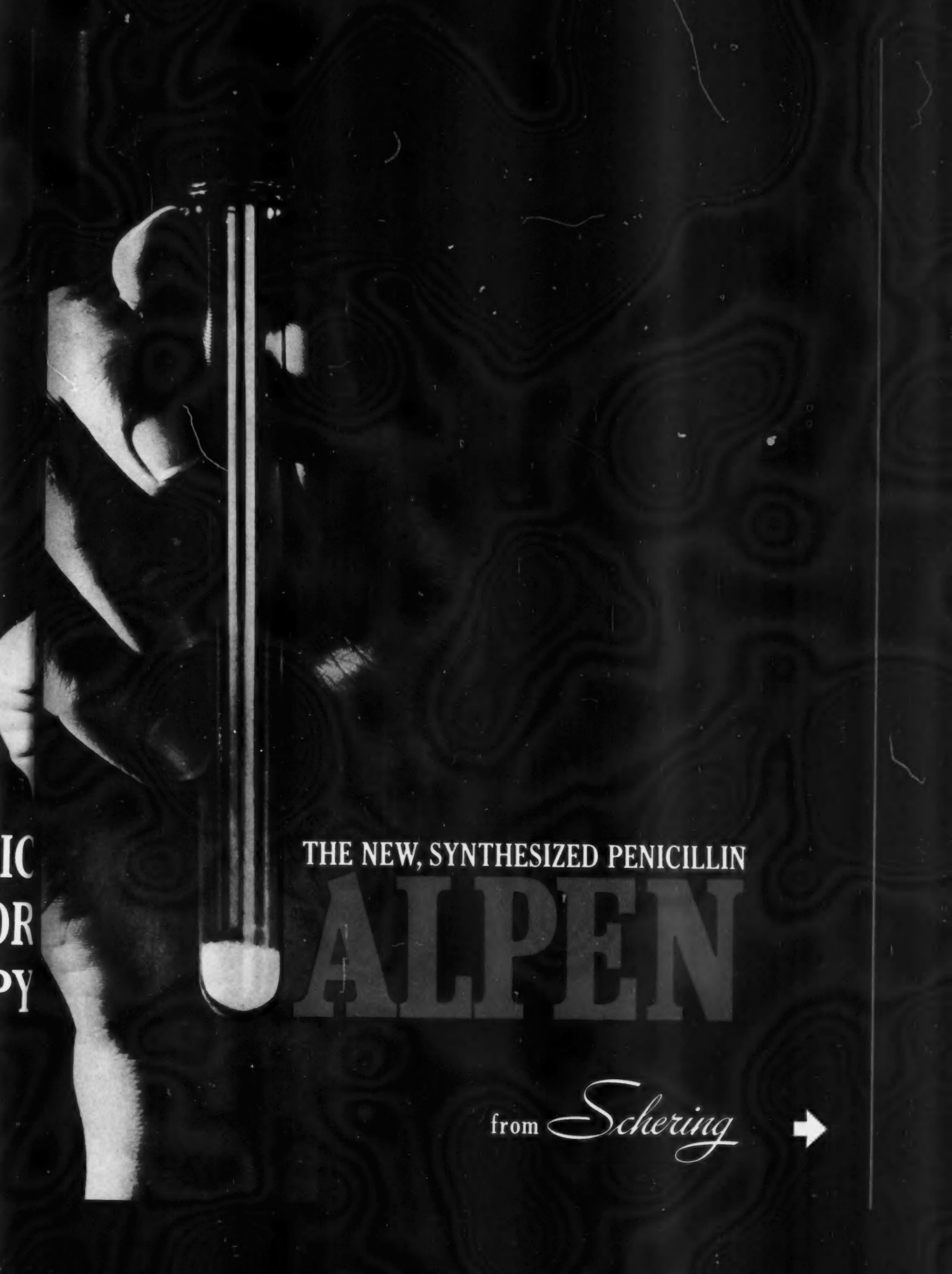
When Aldactone is used in a comprehensive therapeutic regimen, which includes a mercurial or a thiazide diuretic, a satisfactory diuresis and relief of edema may be expected in approximately 85 per cent of edematous patients *who would not otherwise respond.*

DOSAGE: For most adult patients the optimal dosage of Aldactone, brand of spironolactone, is 100 mg. four times daily. Aldactone should be administered for at least four or five days before appraising the initial response, since the onset of therapeutic effect is gradual when it is used alone. Aldactone manifests accelerated activity with greater response as early as the first and second days when used in combination with a mercurial or thiazide diuretic.

SUPPLIED: Aldactone is supplied as compression-coated yellow tablets of 100 mg.

G. D. SEARLE & CO.
Chicago 80, Illinois
Research in the Service of Medicine


PENICILLIN, YOUR FIRST ANTIBIOTIC
NOW SYNTHESIZED FOR
IMPROVED ORAL THERAPY


THE NEW, SYNTHESIZED PENICILLIN
ALPEN
from Schering


THIS IS
THE
TABLET

ALPEN is the oral penicillin that provides on a fasting stomach peak antibiotic blood levels approximately twice as high as oral potassium penicillin V... and significantly higher than I. M. penicillin G.

Some strains of staphylococci resistant to other penicillins exhibit in vitro sensitivity to potassium phenethicillin.

ALPEN has greater freedom from the G. I. sequelae (overgrowth of resistant flora) sometimes observed with broad spectrum -mycins.

ALPEN gives much higher antibiotic levels within the first hour of ingestion by the well-tolerated oral route.

WHEN TO USE ALPEN Recommended in the treatment of infections caused by pneumococci, streptococci, gonococci, corynebacteria, and penicillin-sensitive staphylococci.

HOW TO USE ALPEN Depending on the severity of the infection, 125 mg. (200,000 units) or 250 mg. (400,000 units) three times daily may be used. In more severe or stubborn infections, a dosage of 500 mg. (800,000 units) t.i.d. may be employed. In beta hemolytic streptococcal infections, treatment should be continued for at least ten days.

PRECAUTIONS The usual precautions in the administration of oral penicillin should be observed. For further details see package literature.

Tablets: 125 mg. and 250 mg., bottles of 25 and 100. Powder for Oral Solution (lemon-lime flavored), 1.5 Gm. bottle (125 mg. per 5 cc. teaspoonful).

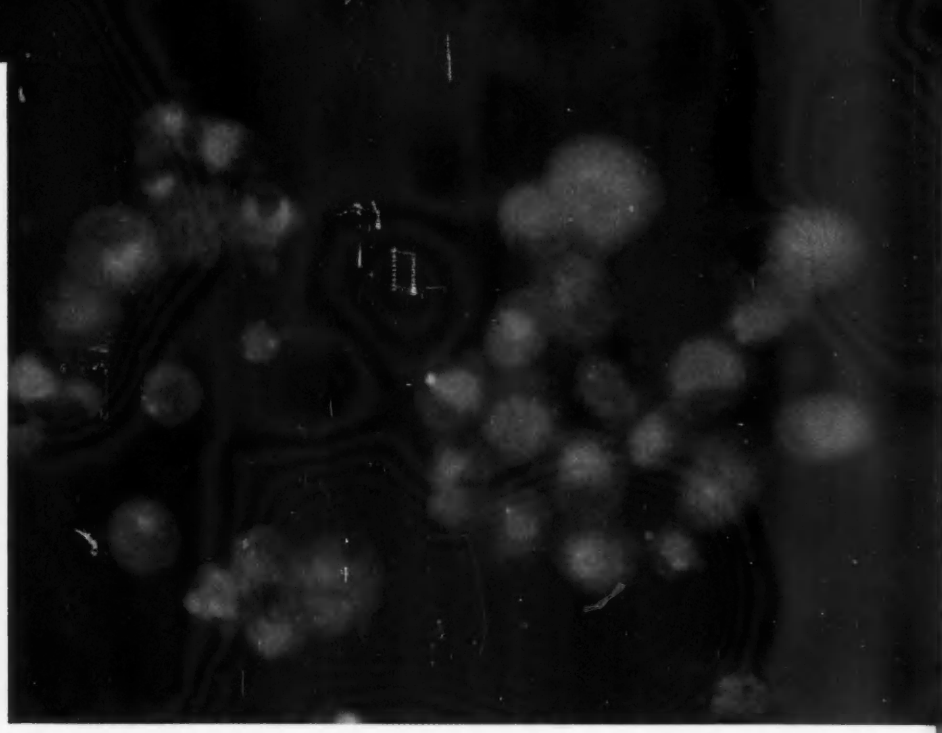
this is the tablet that gives higher peak antibiotic blood levels

HIGHER THAN I. M. PENICILLIN G
HIGHER THAN POTASSIUM PENICILLIN V

ALPEN

ALPEN™—potassium phenethicillin

Schering



TYPICAL APPLE-GREEN GLOW is given off by poliomyelitis virus stained with fluorescent antibody.

GREEN LIGHT FOR DIAGNOSIS

Fluorescence test provides new way to spot hidden antigens

In the ten years since Harvard's Dr. Albert Coons developed the fluorescent antibody technique, the possibility of widespread diagnostic use has been an ever-present and tantalizing dream. At last, it is being realized.

This technique, long noted for its research powers, is proving a faster way of detecting disease than many serological methods—and is just as reliable. Most promising for the near future is effective use in three situations where it fills important needs: tagging of rabies in animals, the reliable diagnosis of syphilis, and the quick detection of streptococci from throat swabs, thus providing opportunity for rheumatic fever prevention.

The Public Health Service has even said the method will one day make it possible for the physician to make "accurate diagnosis of certain communicable diseases within minutes after the patient comes to his office." And nearly everyone working with the method believes it is certainly within reach of hospital or other centralized labs right now.

Basically, the test is simple. One or two molecules of fluorescent substance are linked to each protein molecule in an antibody solution. The antibodies attach themselves firmly and specifically to their antigen—if it is there. All other fluorescing proteins are washed away, leaving the antigen-antibody complex bathed in an apple-green glow.

DECADE IN EMBRYO

As is so often the case, this simplicity is deceptive. The care and knowledge required to perform this "elementary" operation are among several factors which have caused the ten-year-lag between conception of the method and birth of its diagnostic usefulness. One of the biggest problems which had to be worked out was the development of a fluorescing color which could be distinguished from the normal "background" fluorescence of all organic materials. World War II—which later gave impetus to fluorescence research because of its significance in germ-warfare defense—was a major interruption to Dr. Coons' work. Another impeding factor, according to the 47-year-old immunologist, was the simple fact that in its beginnings the technique required proficiency in both chemistry and histology, at that time not a common combination. This same factor, plus the supreme caution of experienced immunologists, is making the present procession toward widespread diagnostic use both slow and stately.

But the basis for optimism is solid; it consists mostly of the experience and information amassed in the 70-year history of immunology, all of which can be converted to use with fluorescence microscopy. In cases where the antigenic methods have already been worked out, the fluorescent technique may help untangle the remaining knots.

It also has become apparent that immunofluorescent methods can be perfectly applied to the two classical tests of immunology: the application of known antibody to the identification of unknown pathogens, and use of known pathogens to determine the presence of specific antibody.

Much of the impetus for these conversions has come from the Public Health Service and its Communicable Disease Center in Atlanta, with its various branches. The application of fluorescence to routine public health laboratory use is largely the result of

four years' work by Drs. Max Moody and Morris Goldman in Atlanta. The CDC was responsible, for instance, for the proof that rapid streptococcal diagnosis is practical. In field tests in Tennessee, North Dakota, Colorado, Illinois and Maryland, CDC teams took thousands of throat swabs, tested them by the standard method (which takes several days) and by the fluorescent method (in two or three hours).

The fast fluorescence test proved to be just as accurate as the old slower method. The initial use of the strep test, however, will probably be confined chiefly to research because of current difficulties in obtaining test materials, personnel, microscope equipment and light sources. But the PHS plans to push the program; Health, Education and Welfare Secretary Arthur Flemming has pointed out that the fluorescent technique provides the first real opportunity for physicians to prevent the first crucial attack of rheumatic fever. He has high hopes that the breakthrough may eventually wipe out most of the 20,000 annual deaths from rheumatic heart disease.

CDC scientists also made, and field-tested, the discovery that rabies can be detected within one working day even in animals where Negri bodies cannot be demonstrated. The method is by no means foolproof. But it promises eventual relief from the troublesome difficulty of deciding whether to proceed with risky rabies prophylaxis on the vague, mixed basis of clinical observation, laboratory clues and sheer intuition. Furthermore, it appears that the test is made even easier by the use of animal salivary gland material rather than brains.

DR. ALBERT H. COONS, developer of the technique, works in Harvard laboratory.

EXCITING POSSIBILITY

In Dr. Coons' view, however, the most important immediate use lies in the diagnosis and study of atypical pneumonia and the positive diagnosis of syphilis. For the former, there is no other antibody test. Complement fixation tests, too, are valueless; atypical pneumonia virus fixes no complement. Thus diagnosis has been for the most part retrospective. But now Dr. Chi'en Liu of the University of Kansas Medical Center has found antigenic substance in atypical pneumonia by the fluorescence method. Dr. Robert Chanock of the National Institutes of Health and others have confirmed and extended these findings, and Dr. Coons is much excited by the possibilities implied in this finding.

As for syphilis, immunofluorescence carries an important ace up its sleeve. Currently, detection depends largely on the Treponema Immobilization Test, which requires viable organisms. The fluorescence method does not. It also appears that the procedure would not be as expensive as TPI tests, that materials can be made available from commercial sources, that the actual reading of the test consumes about one minute and the entire test one hour. Moreover, slides can be examined at any convenient time and even filed for reference under refrigeration for several weeks.

Epidemiological possibilities were also indicated about two years ago in a systematic investigation of frozen stool samples collected during an epidemic of infant enteritis caused by E. coli. The results of this retrospective study by Dr. J. Whitaker and others at Detroit's Child Research Center were striking. The specimens studied had been taken three years previously and freeze-stored; data from cultures and rectal swabs taken during the epidemic were still available. Thawed specimens, studied by immunofluorescence, then re-cultured, showed 97 positives out of 128—whereas only 53 had been positive in the original study. But the investigators were able to prove that none of these fluorescence-positive reactions was false.

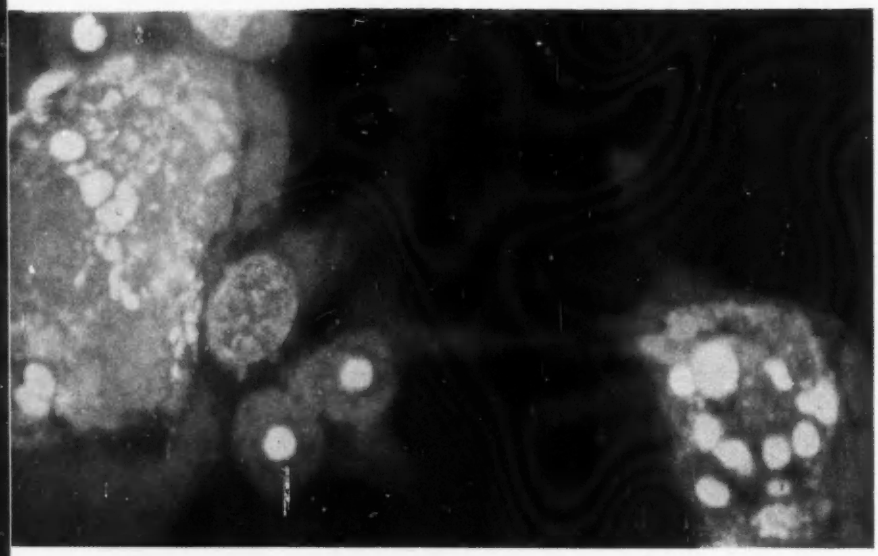
Especially interesting was the finding that patients who had been given neomycin and whose stool specimens failed to grow pathogenic organisms still showed specific antigen on smear —an indication that organisms which had lost the power to reproduce or were so few as to escape routine culture detection could be identified by the fluorescence technique.

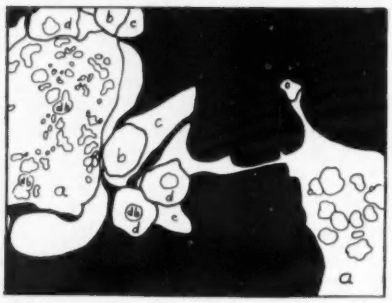
MORE STABLE DYE

Recent developments involving the dyes used by the CDC for immunofluorescence work may also help make the technique more practical. Two fluorescein derivatives — isocyanate and isothiocyanate—are being used. Both are weak dyes when observed under visible light but become powerful fluorochromes under ultraviolet light. Early studies relied largely on the first, but workers have found recently that the latter, which has the advantage of being available commercially, also has the advantage of being more stable.

Dr. Coons calls tedious any listing of the numerous organisms already proved within the grasp of the green glow. But some hint of the test's versatility and universality can be given by noting some of the organisms already detected. Among the bacteria: E.coli, pneumococcus, Salmonellae, gonococcus, plague, Shigella, B.anthracis, P.tularensis; among pathogenic fungi: C.albicans, H.capsulatum, B.dermatiditis, C.neoformans; among animal parasites: T.gondii, T.cruzi

CONTINUED





GIANT CELLS formed from herpes simplex virus cells arrested in mitosis are visualized for first time by acridine-orange staining. Key shows normal cell (c), mitotic cell (d), nucleus of mitotic cell (db).

DIAGNOSIS CONTINUED

(American trypanosomiasis); among the rickettsiae: Rocky mountain spotted fever, epidemic typhus and the organism of Q-fever; and among hosts and hosts of viruses: flu, polio, Coxsackie, ECHO, vaccinia, herpes simplex, canine distemper, mumps, psittacosis, measles, polyoma, etc.

Workers with the method have also found that heterologous complement is taken up by the antigen which has reacted with its antibody. This is a further simplification, since for many investigations only one labelled serum need be prepared. For instance, anti-guinea pig serum can be used to test any number of antigens and antisera from several species.

Immunology researchers and clinicians, however, are too familiar with the pitfalls lurking in the complex world of antigen and antibody not to be cautious. Technique-originator Coons underlines all their words of qualification. One good reason is that the efficiency of fluorescent antibody linkage must be worked out for each and every new antigen to be tested. Immunofluorescent diagnostician Charles C. Shepard of the CDC, a champion of the new technique, notes also that many of the antibody tests are only "in the development stage."

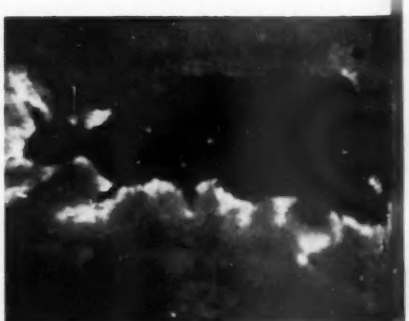
But the CDC, for one, is not going to leave them there. With a $260,000 budget boost this year for this specific activity, the Center is rapidly expanding its already busy attack on communicable diseases. Underway, or planned, are field trials on syphilis in Nashville, Houston, Lansing, Mich., Madison, Wis., Jacksonville, Fla., and Durham, N. C. A field trial on gonorrhea in Fulton County, Ga., is on its way. Heavy emphasis is being placed on the training of technicians from state and local health departments, some of which have already been equipped to use the technique. And the CDC's laboratory branch in Chamblee, Ga., is now compiling a guidebook to fluorescent antibody techniques in communicable disease diagnosis, expected to be available within a few months. It is Sec. Flemming's opinion that once the methods are perfected for various organisms, the whole system of laboratory procedures for identifying communicable diseases will be revolutionized.

MULTIPLYING RESEARCH

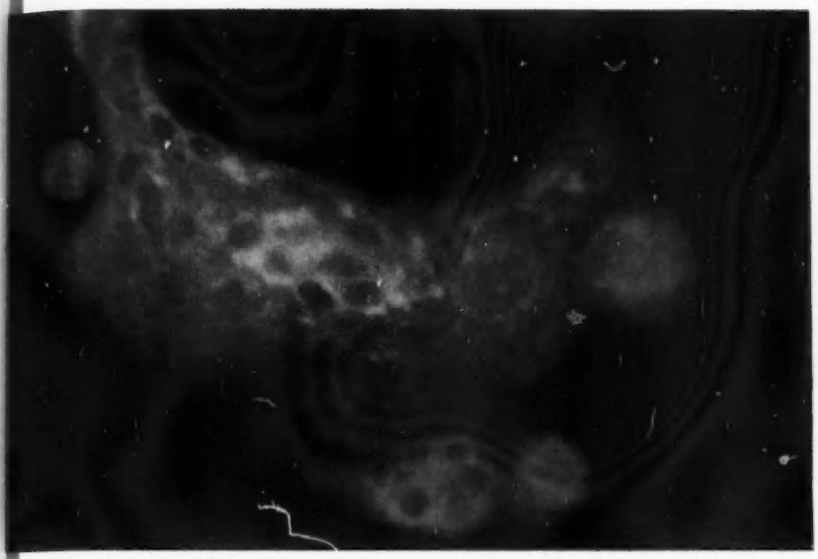
While all this diagnostic work has been gathering momentum, the research uses for which the method was once most noted have been continuing and multiplying. Many of these, like the diagnostic applications, are in development. But some suggestive basic findings have recently been reported.

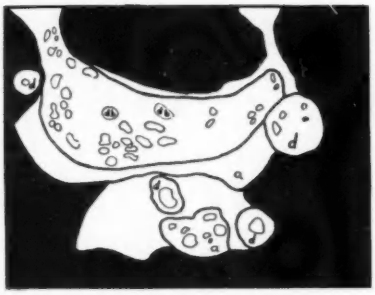
At the University of Southern California, for instance, Drs. Fred Rapp and Irving Gordon have applied fluorescent antibody methods to work out a timetable of measles infectivity. Using epidermoid carcinoma cells as virus hosts, they found that 12 hours after inoculation the virus appears in cytoplasm and within 18 hours invades the cell nuclei. By the 36th hour multinucleated giant cells appear and after 48 hours, measles antigen spreads to other cells. Dr. Rapp reports that the initial detection of the measles virus only 12 hours after inoculation is the earliest such identification in tissue culture experiments.

Work also in progress at Johns Hopkins has turned up clues about the synthesis of virus in infected cells. Several viruses, such as measles, herpes simplex and mumps have been shown to cause formation of multinucleated giant cells, both in natural infection and in culture. Ordinarily, fluorescent antibodies in these giant cells localize in the cytoplasm and around the nuclear membrane, giving the impression that virus is formed in the cytoplasm. But Dr. Bernard Roizman has just discovered mitosis in these cells, a previously unsuspected phenomenon. The Johns Hopkins microbiologist has pursued this clue further by producing giant cells made



PRIMARY atypical pneumonia virus detected by antiglobulin promises to be the first test for determining this disease.





FLUORESCING ANTIBODY of herpes simplex localizes around mitotic nuclei in giant cell. With technique, Johns Hopkins investigator has uncovered evidence pinpointing site of virus synthesis.

entirely of cells in mitosis (see pictures above). He has discovered that fluorescence—and thus by implication, virus synthesis—occurs in these giant cells only at the surface of the nucleus, not in the cytoplasm.

And the recent finding of Egypt 101 virus "slumbering" in tumor metastases offers food for the tumor virologist's thought. As the investigators were quick to point out, the discovery hints that pathogenic agents may sometimes turn up in lesions in the causation of which they played no part.

(A corollary to the fluorescent antibody field—but not to be confused with it—has arisen from work with acridine orange staining, by many investigators including Dr. Ludwig von Bertalanffy of the Menninger Clinic in Topeka. It depends on an affinity between acridine orange fluorescent dyes and the two nucleic acids found in nature. The potentials of this finding for application to bacterial and cancer research are being widely explored, and at least one practical use has reached a physician's office. Dr. Walter Sussman, a Philadelphia GP, has just reported to the AAGD that he has observed variations in the degree of fluorescence in normal and malignant cells. In his office practice he has found that the test is simpler and faster than others in screening for cancer of the cervix, vagina and breast, and for other gynecological malignancies. Dr. Sussman believes that the 15-minute acridine orange technique, as a method of eliminating normal smears at least, "would expedite mass screening for atypical cellular pathology." The cytologic diagnosis, of course, must be correlated with routine office examinations, he points out.)

DEVELOPER HONORED

While it may be some time before the fluorescence microscope becomes common office equipment, and while some experts believe it will always have to remain in the laboratory, the significance of all this productivity in the field is apparent. Long hailed as a research leader by leaders in research, Dr. Coons' public health achievement has recently been officially recognized as well, in the presentation of the American Public Health Association's highest honor, the Lasker Award. In some quarters the work has been called "one of the major inventions in medical science during the past 20 years."

Modestly, Dr. Coons himself leans toward the view that for "some problems" the use of fluorescent antibody is likely to become a valuable routine method in the diagnostic as well as the research laboratory. He considers these as the three important areas unmasked by fluorescent work to date:

- The combination of serological specificity with morphology by the addition of fluorescent antibodies—a powerful merger since it allows identification of tiny numbers of organisms (even single bacteria) or of infected cells among a large population of a different sort. Thus unknown antigens or the "footprints" of previous antigenic stimulation in the host's serum can be tracked.
- Rapid identification of bacteria and viruses. Time required for diagnosis is cut remarkably in some cases—to as little as one hour for some of the bacteria and to no more than 24 hours for some of the viruses. Thus the clinician realizes a great advantage in diseases such as diphtheria where early diagnosis is a crucial factor in prognosis.

In the case of bacterial identification there are two kinds of problems about specificity—one involving unpredictable non-immune reaction of fluorescent proteins with materials in the specimen, the other involving heretofore unrecognized or untroublesome possession of similar antigens by pathogens and non-pathogens alike. These can be solved by classical methods. At the same time, new antigenic relationships among bacterial strains may well be discovered; some hints have already appeared.

As for viruses, available diagnostic methods are currently difficult and often retrospective, so diagnosis by immunofluorescence would be a great improvement. "It would be still more useful if there were effective chemotherapeutic agents," Dr. Coons notes. "However, there is no substitute for information, and the sooner it is acquired the more useful it is."

- Not in existence, but predictable, is the possibility of discovering agents now unknown, or the association of agents—now hard to recognize—with diseases of currently unknown origin. And even new viruses may be discovered with fluorescent techniques.

properties

greater inhibitory action...lower intake per dose... DECLOMYCIN produces equivalent or greater clinical activity with less antibiotic because of two basic factors: (1) increased potency, and (2) longer retention.

broad-spectrum control in depth. Higher activity level enhances the advantages of broad-spectrum antibiotics. Some problem pathogens have been found more responsive. Strains of Pseudomonas, Proteus and *A. aerogenes* have proved sensitive to DECLOMYCIN.

sustained activity level. DECLOMYCIN maintains a more constant level of activity. Infection is quickly resolved.

24-48 hours extra activity... protection against relapse. Antimicrobial control is maintained after stopping dosage. Most other antibiotics dissipate rapidly on withdrawal.

REFERENCES:

1-9. Papers read at Seventh Symposium on Antibiotics, Washington, D. C., November 4-6, 1959.

10. Compiled from clinical reports, Department of Clinical Investigation, Lederle Laboratories, January, 1960.

CAPSULES, 150 mg., bottles of 16 and 100.
Dosage: average adult, 1 capsule four times daily.

PEDIATRIC DROPS, 60 mg./cc. in bottle of 10 cc. with calibrated dropper.

New **DECLOMYCIN SYRUP,** cherry-flavored, 75 mg./5 cc. tsp., in 2 fl. oz. bottle—3-6 mg. per lb. daily in four divided doses.

new broad-spectrum

DECLOMYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

LEDERLE LABORATORIES, a Division of AMERICAN CYANAMID COMPANY, Pearl River, N. Y. Lederle

performance

genitourinary infection. Roberts, M. S.; Seneca, H., and Lattimer, J. K.,[1] New York, N. Y.–Ninety-one per cent of the Gram-positive and 27 per cent of the Gram-negative, among 66 organisms cultured from genitourinary infection, responded to DECLOMYCIN. Serum antibiotic activity was found three times greater than with tetracycline.

toleration. Boger, W. P., and Gavin, J. J.,[2] Norristown, Pennsylvania–Side effects with DECLOMYCIN were minimal. When dosage was 0.5 to 1 Gm. daily in divided doses, only two of 82 patients exhibited nausea.

activity level sustentation. Kunin, C. M.; Dornbush, A. C., and Finland, M.,[3] Boston, Massachusetts–Of the four tetracycline analogues, DECLOMYCIN Demethylchlortetracycline showed the longest sustained activity levels in the blood.

gonococcal infection. Marmell, M., and Prigot, A.,[4] New York, N. Y.–Of 63 cases of gonorrhea, 61 promptly responded after short courses of DECLOMYCIN.

bronchopulmonary infection. Perry, D. M.; Hall, G. A., and Kirby, W. M. M.,[5] Seattle, Washington–Of 30 cases of acute bacterial pneumonia, all were afebrile following two to 10 days of treatment with DECLOMYCIN. Results were good in 21.... All of six patients with acute bronchitis responded promptly.

pediatric infection. Fujii, R.; Ichihashi, H.; Minamitani, M.; Konno, M., and Ishibashi, T.,[6] Tokyo, Japan–In 309 pediatric patients with various infections, DECLOMYCIN was effective in 75 per cent.

pneumonia. Duke, C. J.; Katz, S., and Donohoe, R. F.,[7] Washington, D. C.–Results were satisfactory in all but two of 32 cases of acute bacterial pneumonia, of which only 11 were uncomplicated. No side effects were observed.

pustular dermatosis. Blau, S., and Kanof, N. B.,[8] New York, N. Y.–Results with DECLOMYCIN were excellent in both of two cases of impetigo, one of two cases of folliculitis, six of nine cases of furunculosis, all of three cases of acne rosacea and 26 of 45 cases of acne vulgaris. Over-all, results were excellent or good in 85 per cent.

antibacterial spectrum. Finland, M.; Hirsch, H. A., and Kunin, C. M.,[9] Boston, Massachusetts–DECLOMYCIN Demethylchlortetracycline was found the most effective of the tetracycline analogues against two-thirds of 680 normally sensitive strains of 15 separate species.

the over-all picture. Combined results reported by 262 clinical investigators[10]–DECLOMYCIN produced a favorable response (cured or improved) in 87 per cent of 2,389 patients. Two-thirds of the patients received one capsule every six hours. Treatment was continued for as long as 180 days, but was between three and eight days in most. Side effects were seen in 10.2 per cent, but necessitated discontinuance of treatment in only 2.1 per cent.

new broad-spectrum

DECLOMYCIN®

DEMETHYLCHLORTETRACYCLINE LEDERLE

There's hardly a reason *not* to prescribe Doriden for every patient who needs a good night's sleep

Because it acts smoothly, because it is metabolized rapidly, because it apparently has no toxic effect on liver or kidney, Doriden is indicated in many cases where barbiturates are unsuitable. With Doriden, for example, you can prescribe a good night's sleep for patients sensitive to barbiturates, elderly patients, patients with low vital capacity and poor respiratory reserve, and those unable to take barbiturates because of renal or hepatic disease. And Doriden patients awake refreshed – except in rare cases, there's no morning "hangover."

SUPPLIED: *Tablets,* 0.5 Gm., 0.25 Gm., 0.125 Gm.

DORIDEN®

(glutethimide CIBA)

For a complimentary supply of Doriden, write (on your letterhead or ℞ blank) to:
CIBA Pharmaceutical Products Inc.
P.O. Box 277, Dept. 12
Summit, New Jersey

CONGRESS OF DELEGATES censures the "Committee of Ten" for attempts to establish an American Board of General Practice.

GP STATUS SEEKERS

At the annual meeting of general practitioners in Philadelphia, ten Academy veterans are sharply rebuffed in their attempt to get the family doctor recognized as a specialist

Amid the traditional revelry and politicking of its annual meeting, the American Academy of General Practice and its Congress of Delegates was confronted with a sobering fact. Ten of its members, acting on their own, had taken the first step to establish general practice as a specialty. They had officially incorporated themselves as the American Board of General Practice, Inc.

To make matters more complicated, the "Committee of Ten" were not ordinary status seekers. All "Ten" were highly regarded veterans of the AAGP. Four were former members of the Academy's Board of Directors, one, a vice-president. Their action brought the issue of a certifying board, long cancering in the GPs' flesh, to a sudden head.

With specialists swarming around them in mounting numbers and many hospitals still balking at granting local GPs hospital privileges, the 26,000 members of the Academy have for years sought to upgrade general practice. And while they have been eminently successful, there has been some sentiment that greater status could be achieved by forming a board which would certify "family doctors."

Two years ago the AAGP Committee on Minimum Uniform Standards in Education for General Practice — the MUSE Committee — recommended that the AMA's section on general practice consider backing the creation of such a board. But last year's Congress flatly vetoed the idea. Thus, the action of the "Ten" was officially contraindicated, and the Academy leaders in Philadelphia lost little time making this fact clear.

In a special report, Dr. Floyd Bratt of Rochester, N. Y., and chairman of the Board of Directors (later chosen AAGP president-elect) reprimanded the group, charging their incorporation "hasty" and "a misguided effort to shortcut standard procedure." He also declared that GP officialdom repudiated any responsibility for the incorporated board's "parentage."

Mac Cahal, full-time executive secretary and prime mover of the Academy, joined in and warned that "a second national association in general practice would vastly weaken the influence of the AAGP."

This issue was obviously too hot to be bandied about by the full membership. After a round of top-level reports and five resolutions from Louisiana, New Jersey, Texas, Arkansas and Minnesota opposing the new certifying board and two (from Michigan and Mississippi) favoring it, the battleground was shifted to a reference committee.

Its night meeting was attended by four of the now-famous "Ten": Dr. I.

CONTINUED

Phillips Frohman of Washington, D. C., past chairman of the AMA section on general practice; Dr. Samuel Garlan of New York City, past president of his state's Academy; Dr. E. I. Baumgartner of Oakland, Md., past member of the AAGP board; and Dr. Lester D. Bibler of Indianapolis, former AAGP vice-president and first president of his state's Academy.

As discussion opened, Dr. William E. Lotterhos of Jackson, Miss., argued that a way must be found to attract more young men into general practice, and pointed out that by forming certifying boards, other groups had raised their standards.

Dr. Harry Tubbs, a Lincolnesque Texan, who announced he was prepared to filibuster against the certifying group all night, countered: "We say keep up, or get out! I want to take the whip from the horse—I want to have the GP sit in the buggy and do the driving." The horse to be driven, he hinted, was the specialist.

After three wearying hours of wrangling, Dr. Baumgartner finally rose to speak for the "Ten." The charter, he protested, had been obtained to protect the AAGP, not to destroy it. Such a board would have to function through the Academy and the AMA and get approval from the specialty board. The idea had been simply to get a charter and hold it for future need. The group, he declared, stood ready to submit its charter to the AAGP directors.

SPEAKER James D. Murphy of Texas staves off open floor fight on speciality issue.

The ploy had failed, and the "Committee of Ten" had no illusions about what would happen when the Congress resumed full session the next day.

In reporting its decision to the Congress the reference committee echoed the views of a delegate from the state of Washington:

"In view of the ill-advised and irresponsible action of certain individual members of the Academy in incorporating a so-called Board of General Practice, any action by this Congress . . . which could be construed as even tacit approval would work to our eventual detriment."

The committee made it clear, however, that it saw no malice aforethought on the part of the "Ten." It added, "they were acting in good faith and their intent was to protect the title of such a board for future use by the American Academy."

As a final recommendation, the committee asked that some of the "Ten" meet with an existing AAGP liaison committee to try to settle the impasse. This, and a resolution opposing the certifying board, was quickly approved. So was a section of the reference report which read: "The essential role and secure status of good general practitioners as the family physicians of America are being achieved within the present framework of the AAGP."

The Congress of Delegates had sat down hard on the "Ten." But the "Ten" still had their charter.

ARE GP 'GHOSTS' FOR REAL?

There's a new phenomenon on the American medical scene—the "ghost GP," a physician who dons the hat of a specialist to gain hospital privileges but who practices general medicine in his office. Concern over the rapid proliferation of this medicine split-personality was expressed in private conversations at the AAGP meeting in Philadelphia. One of the Academy's most pressing problems is that of putting the "family doctor" on the same level of hospital prestige as the specialist.

Actually, there are two types of "ghosts." One may be board-certified in a specialty, the other, though not certified, indicates he is interested in a specialty. Here's how one leader of the AAGP explained it:

"Let's say the man has become a certified internist. He opens up his office thinking people will beat a path to his door. The facts are different. Soon, he becomes anxious and ready to treat anything that comes his way—children, allergies, skin diseases and sewing up fingers.

"At the same time, he wants a hospital appointment to give him stature and to let it be known he is in a specialty. So, he applies to a hospital for an appointment and may start off, in a city hospital, as 'clinical assistant visiting physician,' working in the outpatient clinic. He may even be assigned to a specialty he may not want, but he accepts it.

"As far as the hospital is concerned, he is a specialist. In most instances, they do not know that he is practicing general medicine in his office."

How greatly this matter of hospital privileges stirs the bona fide general practitioner who is not a "ghost" was reflected in some of the reference committee hearings where GPs could air their troubles. Some thought the "ghost GP" might one day be exorcised when the public comes to the rescue of the general practitioner and forces more hospitals and universities to open up general practice departments. Others, less confident, felt that the matter should be taken to state legislature in an attempt to open, by law, the doors of public hospitals to the GP. However, everyone agreed that unless some steps were taken, the "ghost" will continue to walk in his dual role.

WHEN THE SEQUENCE OF
SYMPTOMS SPELLS

new

OXAINE*

Oxethazaine in Alumina Gel, Wyeth

for

GASTRITIS

OXAINE — a gastric mucosal anesthetic preparation to relieve pain of gastritis—contains oxethazaine, an original Wyeth compound, developed after 5 years' research and clinical trial.

OXAINE is indicated for many gastric disorders, such as gastritis, which are not totally managed by diet, antacids and anticholinergics.

Other disorders, related to gastritis, for which OXAINE has proved effective are: indigestion, heartburn, dyspepsia, esophagitis, duodenitis, irritable bowel, spastic colon, and nausea and vomiting.

As reported in J.A.M.A., OXAINE brought complete relief to 96% of 92 patients suffering substernal pain and upper abdominal distress associated with gastritis.
—Deutsch, E., and Christian, H.J.: J.A.M.A. 169:*2012 (April 25) 1959.*

OXAINE provides sustained anesthesia over many hours, unaffected by ebb and flow of gastric contents.

Oxethazaine, the mucosal anesthetic in OXAINE, is 4000 times more potent topically than procaine. Safe, not a "caine." Only two known cases of sensitivity (glossitis) occurred in extensive clinical trials.

**Trademark*

100

Wyeth®

Wyeth Laboratories Philadelphia 1, Pa.

A Century of Service to Medicine

GP BRIEFS

Here in brief are highlights from the annual meeting of the American Academy of General Practice in Philadelphia

ALLERGIST PREDICTS RATE OF PENICILLIN SHOCK DEATHS

A Boston allergist has estimated that 200 persons will die this year from anaphylactic shock caused by a penicillin shot. Dr. Ethan Allen Brown based his projected figure on these facts:

In 1959, according to the Department of Health, Education and Welfare, about 190 million units of penicillin were injected. The basic rate of anaphylactic reactions is 25 for every 10 million injections; of these, three are fatal.

"So we can expect 1,500 anaphylactic reactions annually," Dr. Brown said. "Should one eighth of these be fatal, we can extrapolate that there will be approximately 200 deaths from anaphylaxis each year."

CALCIUM CARBAMIDE FAVORED AS ALCOHOLISM DETERRENT

Calcium carbamide is better than disulfiram in treating alcoholics as outpatients, according to Dr. Jackson A. Smith, clinical director of the Illinois State Psychiatric Institute. The major advantage of calcium carbamide is the absence or minimizing of changes in blood pressure and pulse.

When a patient on the drug takes a hooker, the reaction—flushing, headache, palpitation, nausea, vomiting and shortness of breath—is sufficient to deter further alcoholic consumption. The reaction can be triggered five minutes to eight hours after taking the drug, and may last with decreasing severity up to 15 hours. It can be terminated easily by intravenous antihistamines or the administration of 100% oxygen by mask, Dr. Brown said. No changes in electrocardiograms have been reported. Liver function and hematological findings have been normal with occasional increased white count.

RX SUGGESTED FOR PROTEST AGAINST FORAND BILL

Opposition to the Forand Bill was unanimous among the delegates but suggestions as to effective protests differed. One physician said, "Send telegrams and postcards, and don't sign them as a doctor, it'll be more effective." Another delegate offered this technique: "Just tear off a sheet from your prescription pad and write your protest. That prescription sheet will be mighty powerful."

MILLIONS OF TONSILLECTOMIES, MOSTLY AMONG CHILDREN

More than a million Americans have their tonsils removed every year, accounting for one out of every 16 general hospital cases, according to the Commission on Professional and Hospital Activities. In a study of 9,000 tonsillectomies the Commission found three leading reasons for the operation: Repeated sore throats, 43 per cent; earaches or hearing impairments, 31 per cent; and enlargement or other involvement of the lymph glands of the neck, 19 per cent.

Some other findings: Most tonsillectomy patients are between three and eight years old, spend at least one night in the hospital, and have their operation following inhalation anesthesia. About one half of all patients receive blood clotting agents before operation; about half receive antibacterials. Only one in 30 patients hemorrhages postoperatively, and only one in five of these requires readmission to the hospital.

NEW SULFA DRUG CONTROLS VARIETY OF INFECTIONS

Infections of the upper respiratory tract, gastrointestinal system or urogenital tract have been effectively controlled in 90 per cent of 300 unselected, nonhospitalized patients, through use of sulfadimethoxine, either alone or in combination with other drugs, according to Drs. Kenneth M. Logan and Edwin Matlin of Pittsburgh.

In one example, presented in their exhibit, Drs. Logan and Matlin described a case of male twins who presented anterior cervical adenitis. One twin was used as a control; the other got sulfadimethoxine for six days. The twin treated with the drug showed a normal temperature in 36 hours, and the gland remained enlarged for ten days. The control twin, given routine symptomatic treatment, was still toxic after three days, and the gland continued to increase in size. Sulfadimethoxine was then given to the control twin for six days, after which the temperature became normal within 48 hours and the gland remained enlarged for two weeks.

OLD STANDBYS REMAIN BEST FOR ARTHRITIS AND GOUT

Two old standbys, salicylates and colchine, remain the best for the long-term management of arthritis and gout, according to a panel of rheumatologists, whose discussion also produced these items:

Steroids should be used with caution—they tend to mask symptoms and breed overconfidence, thus leading to overexertion by the patient.

Gouty arthritis sufferers can be cheered by the opinions of Dr. L. Maxwell Lockie, head of the Department of Therapeutics at the University of Buffalo, and Dr. John M. Talbot, editor of the *Journal of the American Medical Association*. Both agreed that champagne, wines and beer need not be denied to those moderately afflicted (less than one attack a year). Scotch, rye and bourbon can be used in moderation by all except severe sufferers.

RETIREMENT, INVESTMENT PLANS APPROVED BY CONGRESS

A new group retirement plan was approved by the AAGP Congress of Delegates. The plan provides both guaranteed lifetime monthly payments from an insurance annuity, and a mutual fund as a hedge against inflation. Academy members can enroll in either part of the plan, paying as little as $15 a month. Under the insurance annuity, there will be 3% interest earnings, compounded annually; the sales charge on the annuity is 2%. Sales charge on the mutual fund shares will be 6% on the first $1,000 bought, and 2% on all other shares thereafter, if the investor retains holdings whose original purchase price is at least $1,000. It is anticipated that the combined plan will go into effect after it has received the approval of the respective state insurance commissions.

LEGISLATIVE NEWS

Put it down as a safe bet now that the Keogh Bill will pass. The Administration has seen the handwriting on the wall and will give up its fight to block action. Physicians have been plugging for this legislation for three decades.

Under the Bill, you would be able to defer income tax payments on money paid into retirement or annuity plans. Instead of pay-as-you-go, taxes will be paid later—at a lower rate—when you are retired and drawing from the plan.

The House passed the measure last year, but it ran into trouble in the Senate. The Administration objected, foreseeing revenue losses which it estimated at $365 million although self-employed groups claimed the loss would be closer to $75-100 million.

It became clear, however, that the Administration's opposition would be overridden, and rather than resorting to a presidential veto in an election year, the Administration ordered the Treasury to draft a more acceptable compromise bill. The result: Physicians and other self-employed who obtain the tax postponement will have to also make retirement plans available to any employees they may have.

Compulsory Social Security for physicians has formally been recommended by the Administration, in testimony by Health Secretary Flemming before the House Ways and Means Committee. Despite vigorous opposition from the AMA, the Committee has decided to put the proposal into its revised Social Security program bill. Physicians are the last large group of self-employed persons currently exempt from the taxes and excluded from the benefits of Social Security.

House investigators finally called in their own panel of scientists in an attempt to settle the row between F.D.A. and industry over the controversial color additives bill. F.D.A. and industry scientists clashed over HEW's demand that the Delaney Amendment — which bars suspected carcinogens in any amount — be applied to colors as well as other foods, drug and cosmetic additives.

Secretary Flemming will bow to modification of the amendment and allow use of suspected carcinogens in animals — the growth-stimulating stilbestrol, for example — as long as no residue remains in the final food product.

He's standing pat, however, against permitting tolerances. Unless the lawmakers get some powerful support from their own scientists, they are unlikely to buck the Secretary.

SMOKING: A KING-SIZE PROBLEM

From WHO, New England Journal and a special symposium in New York come some new findings on the health aspects of a hard habit to break

Within the span of one fortnight, three big details were added to the smoking-and-health picture:

- A seven-nation panel of World Health Organization experts reported agreement that cigarette smoking is the major cause of an international increase in lung cancer.
- In the *New England Journal of Medicine,* long-time smoking analyst Dr. Ernest Wynder described how those individuals who find they just can't stop smoking can nevertheless cut down on the cancer risk.
- In New York, 33 scientists discussed the cardiovascular effects of nicotine and smoking. The consensus: smoking definitely has its effect on the heart and arteries, and it's mostly *not* beneficial.

The WHO experts noted the steady increase in mortality from lung cancer throughout the world and said, darkly, that they see no reason to expect relief from future increases. They agreed unanimously that the "sum total of the evidence available today is most reasonably interpreted as indicating that cigarette smoking is a major causative factor in the increasing incidence" of lung cancer.

None of the common criticisms of this opinion, the experts said, cast "any serious doubt on the conclusions . . . of extensive studies already made."

Considering the factor of air pollution, the group (including American experts Harold F. Dorn of the U. S. Department of Health Research Services, and Dr. Morton L. Levin of Roswell Park Memorial Institute in Buffalo) said its role in many countries appears smaller than that of cigarette smoking—and that perhaps it simply aggravates the effect of smoking.

TO REDUCE RISK

Dr. Wynder in the *Journal* indicated the connection between smoking and lung cancer and suggested that what is needed at present is a practical way to reduce the risk for the inveterate smoker. His over-all comment: since the greater the exposure to a carcinogen the greater the risk, the general rule is to take all possible steps to reduce the amount of smoke condensate reaching the lung.

On the basis of his study of 10 leading brands (see chart), the Sloan-Kettering Institute scientist suggested that the smoker should switch to low-smoke-condensate cigarettes; puff infrequently and try not to inhale (or take up a pipe or cigars); and don't smoke the cigarette down to the butt.

For the tobacco industry, Dr. Wynder had some compliments and some further suggestions. Some of today's brands, especially among the filters and the new really low-smoke-condensate brands (Life, Duke and Spring) are "safer" than most standard brands. Further steps he suggests:

The improvement of filters or the addition of filters to cigarettes now without them, selection of tobacco yielding less smoke condensate, use of less tobacco per cigarette and the selection of highly porous or perforated cigarette paper.

Some new ideas about the mechanism whereby smoking produces well-known physiological effects were suggested at the New York meeting, held under the aegis of the New York Academy of Sciences and the Tobacco Industry Research Council. One theory focused on the role of epinephrine and norepinephrine, already pointed out as a possible factor, for instance, in the stimulation of autonomic ganglia. Experimental studies reported by Dr.

J. H. Burn of Oxford University showed that when atria are isolated from the rabbit heart, nicotine has no stimulant action on either rate or amplitude of activity. Thus it appears that the acceleration of rate and increased beat force which nicotine does cause in atria from normal rabbits is due to the discharge of norepinephrine from the store in the atria.

Dr. Burn also found that nicotine-caused vasoconstriction in peripheral vessels, such as skin, does not appear to come through sympathetic ganglia stimulation as has been thought. Instead, it is produced by the release of norepinephrine. Clinical tests have shown that smoking causes a large fall in skin temperature and a diminution of blood flow through the hand. These effects, apparently, are due to release of norepinephrine from structures in or near the artery wall.

Such a release of norepinephrine shown in both these studies, he concluded, could well exacerbate arrhythmias in susceptible persons.

A footnote to this was offered by Dr. Daniel T. Watts of the Department of Pharmacology, West Virginia University Medical Center, Morgantown, W. Va. In two series of experiments, in which individuals who normally smoke served as their own controls, there was a significant increase in the urinary excretion of epinephrine during heavy smoking—up to 52% in some cases.

An attention-getting report on smoking and ballistocardiography was made by Dr. Caroline Bedell Thomas of the Johns Hopkins University School of Medicine. One of her most important findings was that the circulatory response to smoking, as measured by the ballistocardiogram after one or two cigarettes, may be definitely helpful in predicting hypertension or coronary disease.

Several studies were made on a total of 390 smokers and nonsmokers. Dr. Thomas and her colleague, Dr. Edmund A. Murphy, were chiefly interested in the change following smoking in six variables: systolic pressure, diastolic pressure, pulse pressure, heart rate, stroke volume and cardiac output.

Among 113 subjects they found that the average systolic pressure, diastolic pressure, heart rate and cardiac output all increased after smoking, while pulse pressure narrowed and stroke volume diminished. Since these changes occur after the first cigarette and are not significantly different after a second, they concentrated on tests with one cigarette.

In another study, with 32 male smokers, the investigators found that variations in circumstances—time of day, whether the subject had been fasting, his physical activity prior to the test, whether he had been smoking or not for the preceding eight hours—made little difference. Changes after smoking were "remarkably constant," even more so than control values for blood pressure, heart rate and cardiac output.

CEILING LIMITED

The study suggests that smoking a cigarette tends to push the various measurements to a ceiling, as if a cigarette at different times of day, for instance, always takes up the slack between control and ceiling, regardless of where the control is. Moreover, the ceiling is essentially the same for lighter and heavier smokers, while exercise habits similarly have no effect. Neither does weight in normal subjects. Smokers showed only slightly more active response to a single cigarette than nonsmokers.

Dr. Thomas found, however, that family history does make an important difference.

"The offspring of hypertensive parents tended to be much more reactive than those of unaffected parents, with a significantly exaggerated increase in cardiac output after smoking one cigarette as well as a greater rise in blood pressure and heart rate, while the offspring of coronary parents showed a significantly more marked diminution in stroke volume and a smaller increase in cardiac output than the offspring of unaffected parents.

"Accordingly, the difference in response to the smoking test appears to be in part genetically determined, and may be of predictive value in regard to the development of hypertension and coronary disease at an early age, on one hand, or as an index of longevity and freedom from disease on the other."

Finally, a review of ballistocardiograph tracings and medical history on 245 medical students tested from 1953 to 1958 showed that over 98% had normal control tracings. Three men and one woman showed definitely abnormal or borderline signs. After smoking, 21 subjects showed borderline or early abnormal ballistocardiograms. The pattern of characteristics of 18 out of these 21 differed from those of the 227 normal-testing men. They showed a higher proportion of: older subjects, smokers and former smokers; subjects 10% or more overweight; subjects with a positive history of hypertension and/or coronary disease in one or both parents; presence of mesomorphy or endomorphy; and higher cholesterol levels (250 mg per 100 cc or above first test).

In other papers, conferees heard reports indicating that:

Smoking increases the heart's work load in patients with previous coronary artery disease.

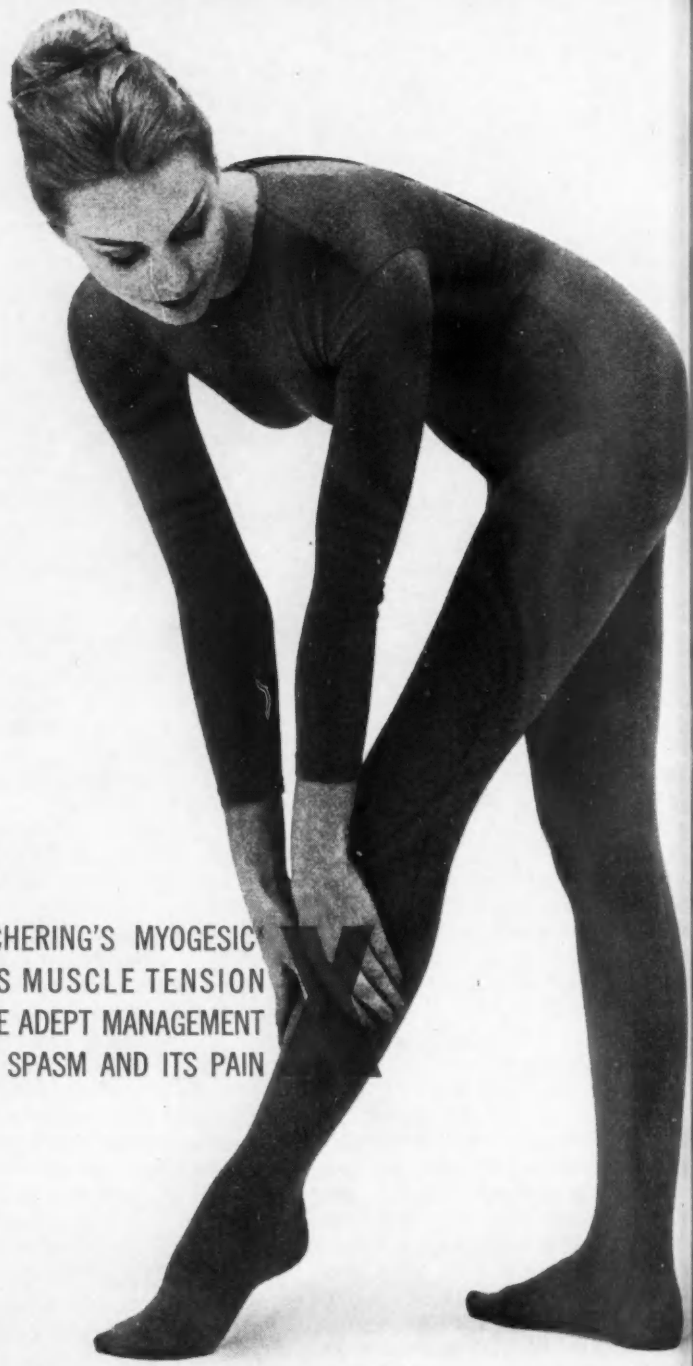
The smoker who inhales absorbs about 90% of the cigarette's nicotine while the noninhaler takes in only about 10 to 15%.

The "satisfaction" of smoking shows up in electroencephalograms just as clearly when the subjects smoked denicotinized cigarettes and when they did not inhale, as when they smoked and inhaled regular cigarettes.

AMOUNT OF SMOKE CONDENSATE CONTAINED IN LEADING BRANDS OF AMERICAN CIGARETTES

Brand	Nat'l position by Sales 1959	Type**	Size mm.	Smoke condensate per cigarette mg.	Nicotine per cigarette mg.
Chesterfield	6	Plain	85	39.8	2.66
Pall Mall	2	Plain	85	35.1	2.42
Camel	1	Plain	70	30.2	2.04
Lucky Strike	4	Plain	70	28.6	1.87
Salem	7	Filter	85	26.0	1.86
Winston	3	Filter	85	23.0	1.70
Viceroy	9	Filter	85	21.4	1.29
L & M	8	Filter	85	21.3	1.37
Marlboro	10	Filter	85	20.3	1.32
Kent	5	Filter	85	17.7	1.04

**Where brands available in several lengths, longest studied. Corresponding shorter cigarettes lower in smoke condensate content.



NO SPRAIN, NO STRAIN, OR LOW BACK PAIN

can resist the rapid relaxant relief of

RELA™

CARISOPRODOL

RELA—SCHERING'S MYOGESIC® X
RELAXES MUSCLE TENSION
FOR MORE ADEPT MANAGEMENT
OF BOTH SPASM AND ITS PAIN

Rela is most useful in the areas where narcotic analgesics are unwarranted and where salicylates are inadequate. Its muscle-relaxant properties are dependable yet significantly free of the limitations or problems often associated with other relaxants.

Rela relaxes acute muscle spasm. Relief of muscle spasm (excellent to good effectiveness in the majority of patients).[1]

Rela provides persistent pain relief through its relaxant and analgesic actions. "Relief from pain was usually rapid and sometimes dramatic."[1]

Rela provides comfort free of spasm and pain. "A number of patients reported freedom from insomnia which they attributed to freedom from pain."[1]

Schering

X MYOGESIC: MUSCLE RELAXANT ANALGESIC

M-252

1. Kuge, T.: To be published.

Editor's Choice

Through special arrangements, articles will be abstracted in this department concurrently with publication in leading medical periodicals. Featured in this first Editor's Choice are abstracts from April specialty journals of the AMA and the Journal of the American Geriatrics Society.

LIVER REGENERATES RAPIDLY AFTER LOBECTOMIES

The liver—the organ most loaded with surgical dangers and the last to yield to resection—is actually something like a weed. The more you cut it, the faster it grows. Hepatic lobectomies performed on 23 patients (16 had a right lobectomy and 7 had a left lobectomy) indicate that within hours after surgery the remaining liver segment starts a comeback. Indeed, the greater the amount of tissue removed, the stronger the inherent capacity of the liver to regenerate itself. In this series, 95% of the patients showed marked improvement in various liver functions by the fifth postoperative day. With time, apparently all of the 250 known physiochemical functions of the liver had regenerated and restored. The rate of regeneration following subtotal hepatectomy is in inverse ratio to the size of the animal, being two to three weeks in a rat with adequate protein in the diet and approximately one year in a human patient. *Pack and Molander, New York, Archives of Surgery, 81:133-140*

PSORIATIC ARTHRITIS: NO KIN TO RHEUMATOID

Although psoriatic arthritis may resemble arthritis when the larger joints are involved, it is a distinct clinical entity, particularly where the distal interphalangeal joints are involved. Psoriatic arthritis differs from classical rheumatoid arthritis by: 1) the predominance of male patients; 2) the asymmetrical joint involvement; and, 3) the massive bone destruction. The absence of the rheumatoid factor in all but 5 of the 40 patients studied and the consistent elevation of the B-globulin found in the 34 patients on which electrophoretic studies were completed may also represent essential differences between the two types of arthritis. The therapy of psoriatic arthritis is for the most part ineffectual. Corticosteroids improve the symptoms of the arthritis, but seem to have little effect on the psoriasis. Antimalarials used for the arthritis may cause exfoliation, and their use in psoriatic arthritis is strongly contraindicated. *Reed and Becker, Burbank, Calif., Archives of Dermatology, 80:59-67*

OCCULT BLEEDING: CAUSE OF ADULT ANEMIA

The concept of a physiological anemia of old age is entirely erroneous. Occult bleeding from the gastrointestinal tract is the most significant single factor in the pathogenesis of anemia, whatever the part played by such other conditions that may coexist. Furthermore, anemia is so common in elderly people that hemoglobin levels should be routine whatever their presenting conditions. When this was done on 156 patients of a British hospital, none suspected of anemia on admission, 64 actually were anemic. Well over 90% of these proved to have iron-deficiency anemia, and 50 showed occult blood in the stools. It follows axiomatically, that in all such cases, full and detailed inquiry should be made into the cause of anemia and particularly into the source of any blood loss. Gregersen's test, though much slandered, gave best diagnostic results. Nevertheless, the tablet test using o-tolidine is promising. *Bedford, Oxford, Journal of the American Geriatrics Society, 8:261-268*

INTERSEXED PATIENT: LADY IN THE DARK

The most remarkable thing about the patient's appearance when she was first seen by us was that it was not possible for any of the observers, including those who knew her anatomic state, to identify her as anything but a young woman. She was tall and slim with long, fine, blonde hair pulled back from her face and across her ears. Her face was young and pretty with a peaches-and-cream complexion. Proudly and accurately she gave her measurements: 37-25-37. A tight sweater revealed ample breasts and a narrow waist. Her voice was rich and soft. She was all woman "except for the damned penis and testes." These she felt were stumbling blocks in passing from one sex to another, and she wanted to have them removed.

Achieving a sexual role which nature didn't quite have in mind is a risky, dangerous business. As the patient put it, "with me it's necessary to tell little white lies."

The patient handles both the routine and the unexpected with evasions and excuses. How well she succeeds is reflected in the fact that for 17 of her 19 years she lived as a boy. For the past two years she has lived as a girl with roommates who are girls.

This case suggests that there is a special group of patients, apparently rare, and especially well hidden from public and even general medical eyes, who are so highly motivated that they succeed where others with severe disturbances in sexual identification cannot quite succeed. They have 'passed.' *Stoller, Garfinkel, Rosen, Los Angeles, Archives of General Psychiatry, 2:19-24*

ANTI-FUNGAL DRUG HALTS FUNGOUS OVERGROWTH

The best way to prevent fungous overgrowth in patients on broad-spectrum antibiotics is to administer an anti-fungal drug as well. In all 13 patients given the anti-fungal nystatin in combination with neomycin, secondary fungus growth was controlled. The 12 control patients on neomycin alone showed significant rises in fungal infections. None of the patients on combined therapy showed signs of toxicity or disturbance of any gastrointestinal function. When neomycin was given alone, the yeast flora of the intestinal tract increased for at least five days after the drug was stopped. With the combination drug, the yeast growth was inhibited for a similar period of time. Since oral feeding is usually resumed by the fifth postoperative day, the drug combination umbrellas the entire period during which there is danger of secondary yeast infections. *Carter, Covert, and Eckert, Albany, N. Y.; Archives of Surgery, 80:9-12*

Pr

ANTIC
Elip
Doride
a new
in epil
some 5
of seizu
patient
appear
tion wi
have n
althoug
served
the dru
rash m
clearin
ical do
by 125
500 an

CAND
ViD
supple
One te
daily n
tamin
quired
years o
ViDay
rectly
or form

NEW
Libr
Roche
quilize
000 pa
rium's
upon
matic
holism
tive in
Toxicit
dosage
with u
side-ef
pear to
Libr
in who
after a
accomp
ules ar
meprol
i.d., ar
sion ac
and in
to 80

Product News

ANTICONVULSIVE

Elipten, para-amino derivative of *Doriden* (glutethimide, Ciba), offers a new idea in therapeutic adjuvants in epilepsy. Clinical trials involving some 5,000 cases show that all forms of seizures are represented among the patients benefited. Greatest usefulness appears to be when used in conjunction with other anticonvulsives which have not afforded complete control, although in some cases, *Elipten* has served when given alone. Allergy to the drug is infrequent. A morbilliform rash may appear, but it is described as clearing on continued treatment. Typical dosage: 125 mg daily, increasing by 125 mg every few days, to between 500 and 750 mg as may be required.

CANDY FLAVOR

ViDaylin-M (Abbott), a nutritional supplement for infants and children. One teaspoonful held to supply the daily nutritional supplementation (vitamin and minerally) normally required by children from one to 12 years of age. A candy-flavored syrup, *ViDaylin-M* can be administered directly or mixed into milk, fruit juice or formula.

NEW TRANQUILIZER

Librium (methaminodiazepoxide, Roche), is structurally a new tranquilizer. Clinical studies in over 20,000 patients have demonstrated *Librium's* rapid and often clear-cut effect upon tension, anxiety, phobias, somatic conversion and acute alcoholism. It has also been shown effective in obsessive-compulsive patients. Toxicity is very low; marked overdosage having led to a period of coma with uneventful recovery. The chief side-effects in therapeutic dosage appear to be drowsiness and overeating.

Librium should be tried in patients in whom meprobamate does not seem, after a critical re-examination, to have accomplished enough. Dosage schedules are about one-twentieth those of meprobamate. Low doses, 10 mg, 3-4 i.d., are proposed for anxiety and tension accompanying medical disorders and in preoperative preparation; 60 to 80 mg daily for severe anxiety in neurotic syndromes (drowsiness may develop at 80 mg); not over 10 mg daily in aged or debilitated patients. Recrudescence of some symptoms may occur when withdrawing phenothiazines to substitute *Librium.* In some cases, several days or a week may be required for the full clinical effect to appear. In depressed states with tension, *Librium* is suggested conjointly with a monamine oxidase inhibitor such as *Marplan.*

THREE-IN-ONE

Syndecon (Bristol), a decongestant-analegesic-antibacterial formulation which is composed of one-fourth of a *Naldecon* tablet, APAP (N-acetyl-para amino phenol) for analgia and 62.5 mg of Bristol's oral penicillin, *Syncillin.* Thus it aims at relief of cold symptoms where bacterial complications exist and oral penicillin is indicated. Usual precautions are necessary for possible allergy to antibiotic.

ANTICOAGULANT

Miradon (anisindione, Schering), is the newest marketed oral anticoagulant. Employed in the usual manner with initial doses of heparin and constant laboratory control, with vitamin K as an antidote where necessary. Clinical trials in the U.S. over a five-year period and general use in Canada for the past three years show *Miradon* is more predictable and stable than the coumarins and other indanediones.

Like all indanedione-type agents, *Miradon* acts by depressing prothrombin formation. Schering reports, however, no "refractory" period after vitamin K therapy. Treatment can be resumed as soon as emergency situation is over. Typical single-dose schedule: 500 mg the first day; 300 mg the second; nothing, third day; and 300 mg the fourth. Continued maintenance: about 250 mg every third day with the usual determinations of prothrombin time.

ORAL PENICILLIN

Maxipen (alpha-phenoxyethyl penicillin potassium, Roerig), similar to earlier released *Syncillin* (Bristol). Produced by fermentation and partial synthesis, *Maxipen* affects the same organisms and has the same indications (and precautions) as older oral penicillins. It produces higher blood levels, however. Thus, for less severe or less dangerous infections due to penicillin-susceptible organisms, 125 or 250 mg may be given t.i.d. until the patient has been afebrile for two days or longer. In severe conditions, 500 mg as often as every four hours may be indicated. Also available: *Maxipen* for oral solution, 125 mg/5 cc, when reconstituted.

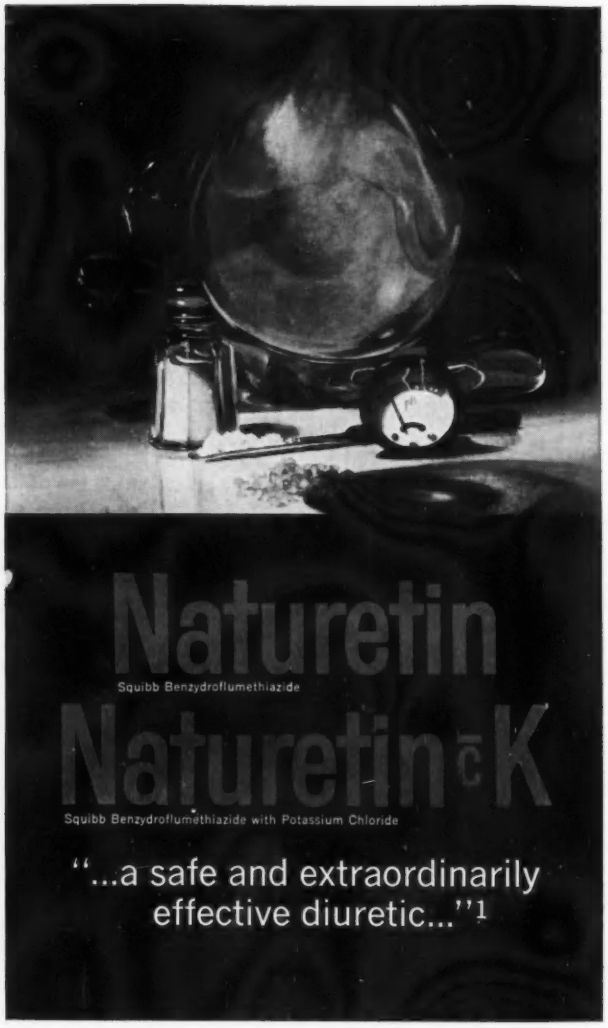
BOOKLETS AND FILMS

Evaluation and Management of Congenital Cardiac Defects, issued by the American Heart Association, is a revised booklet on congenital cardiac defects for practicing physicians. Included in the 32-page booklet: a new section covering those cardiac defects that are amenable to surgery and a description of the symptoms associated with such defects.

Heart Disease Caused by Coronary Atherosclerosis, has also been revised for physicians to distribute to their patients. Both booklets are available upon request from the American Heart Association, 44 East 23 Street, New York 10, N. Y.

Resuscitation of the Newborn, a film illustrating the essential principles involved in the resuscitation of infants who do not breathe—or whose respiration is impaired—at birth. The procedures shown are those developed by the Special Committee on Infant Mortality of the Medical Society of the County of New York. First issue of a new Teaching Film series, the 16mm. motion picture may be obtained on loan through Smith Kline & French Medical Film Center, 1500 Spring Garden Street, Philadelphia 1, Pa.

Three ten-minute films on Keogh-Simpson Bill, which will give professional people a tax benefit, can be obtained free from the American Thrift Assembly, Room 612, 1025 Connecticut Ave., N.W., Washington 6, D. C.



Naturetin—reliable therapy in edema and hypertension—maintains a favorable urinary sodium-potassium excretion ratio . . . retains a balanced electrolytic pattern:

"... the increase in urinary output occurs promptly ..."[1]

"... the least likely to invoke a negative potassium balance ..."[2]

"... a dose of 5 mg. of Naturetin produces a maximal sodium loss."[2]

"... an effective diuretic agent as manifested by the loss in weight ..."[3]

"... no apparent influence of clinical importance on the serum electrolytes or white blood count."[3]

"... no untoward reactions were attributed to the drug."[4]

Although Naturetin causes the least serum potassium depletion as compared with other diuretics, supplementary potassium chloride in Naturetin c̄ K provides added protection when treating hypokalemia-prone patients; in conditions where likelihood of electrolyte imbalance is increased or during extended periods of therapy.

Numerous clinical studies confirm the effectiveness[1-15] of Naturetin as a diuretic and antihypertensive—usually in dosages of 5 mg. per day.

■ the most potent diuretic, mg. for mg.—more than 100 times as potent as chlorothiazide ■ prolonged action—in excess of 18 hours ■ maintains its efficacy as a diuretic and antihypertensive even after prolonged or increased dosage use ■ convenient once-a-day dosage—more economical for patients ■ low toxicity—few side effects—low sodium diets not necessary ■ not contraindicated except in complete renal shutdown ■ ***in hypertension***—significant lowering of the blood pressure. Naturetin may be used alone or with other antihypertensive drugs in lowered doses.

Supplied: Naturetin Tablets, 5 mg. (scored) and 2.5 mg. Naturetin c̄ K (5 c̄ 500) Tablets (capsule-shaped) containing 5 mg. benzydroflumethiazide and 500 mg. potassium chloride. Naturetin c̄ K (2.5 c̄ 500) Tablets (capsule-shaped) containing 2.5 mg. benzydroflumethiazide and 500 mg. potassium chloride.

SQUIBB

Squibb Quality—the Priceless Ingredient

References: 1. David, N. A.; Porter, G. A., and Gray, R. H.: Monographs on Therapy *5*:60 (Feb.) 1960. 2. Stenberg, E. S., Jr.; Benedetti, A., and Forsham, P. H.: Op. cit. *5*:46 (Feb.) 1960. 3. Fuchs, M.; Moyer, J. H., and Newman, B. E.: Op. cit. *5*:55 (Feb.) 1960. 4. Marriott, H. J. L., and Schamroth, L.: Op. cit. *5*:14 (Feb.) 1960. 5. Ira, G. H., Jr.; Shaw, D. M., and Bogdonoff, M. D.: North Carolina M. J. *21*:19 (Jan.) 1960. 6. Cohen, B. M.: M. Times, to be published. 7. Breneman, G. M., and Keyes, J. W.: Henry Ford Hosp. M. Bull. *7*:281 (Dec.) 1959. 8. Forsham, P. H.: Squibb Clin. Res. Notes *2*:5 (Dec.) 1959. 9. Larson, E.: Op. cit. *2*:10 (Dec.) 1959. 10. Kirkendall, W. M.: Op. cit. *2*:11 (Dec.) 1959. 11. Yu, P. N.: Op. cit. *2*:12 (Dec.) 1959. 12. Weiss, S.; Weiss, J., and Weiss, B.: Op. cit. *2*:13 (Dec.) 1959. 13. Moser, M.: Op. cit. *2*:13 (Dec.) 1959. 14. Kahn, A., and Greenblatt, I. J.: Op. cit. *2*:15 (Dec.) 1959. 15. Grollman, A.: Monographs on Therapy *5*:1 (Feb.) 1960.

DOCTOR'S BUSINESS

Fees compared in eleven cities

Fees for typical medical services in 11 major U. S. cities went up an average of 3 to 10% in the past two years, estimates by the Health Insurance Institute indicate. Fees of general practitioners rose the most—about 8% for office and 6% for house visits. Obstetrical fees averaged around 5% higher in 1960, while appendectomy and tonsillectomy charges increased by about 3%. The table lists the 1960 HII estimates, along with the percentage rise over 1958.

	GENERAL PRACTITIONERS		ALL PHYSICIANS		
	OFFICE VISIT	HOUSE VISIT	OBSTETRICAL CASE	APPENDECTOMY	TONSILLECTOMY
Atlanta	$4.51 +8%	$8.50 +10%	$162 +4%	$160 +7%	$85 +8%
Boston	$3.80 +11%	$6.00 +17%	$148 +7%	$175 +2%	$66 0%
Chicago	$5.00 +15%	$7.75 +6%	$145 +7%	$170 +6%	$91 +10%
Cincinnati	$3.65 +10%	$6.25 +10%	$114 +9%	$155 +3%	$73 +9%
Los Angeles	$5.90 +10%	$9.70 +12%	$183 +5%	$235 +1%	$102 +2%
Minneapolis	$3.35 +6%	$6.80 +13%	$120 +5%	$168 +2%	$55 +6%
New York	$3.83 0%	$5.00 +4%	$184 +6%	$191 +2%	$90 +1%
Philadelphia	$3.50 +8%	$4.17 0%	$152 +3%	$158 +3%	$74 +16%
San Francisco	$5.17 +3%	$7.83 0%	$170 +4%	$215 +3%	$99 +3%
St. Louis	$3.85 +8%	$5.70 +5%	$120 +3%	$183 +5%	$76 +1%
Washington, D. C.	$4.80 +11%	$5.65 +3%	$154 +3%	$150 +5%	$69 0%

Withholding on dividends

Stock dividends may, like regular income, be put on a pay-as-you-go-basis. Sen. Harry F. Byrd of Virginia, chairman of the Senate Finance Committee, has put his powerful influence behind legislation seeking deduction of taxes from dividends before being mailed to stockholders. He thinks this is the best way to cut down the Treasury's estimated $400-million-a-year loss from those who don't report all their dividend income. He'll suggest it as an amendment to any tax bill that reaches the Senate from the House before adjournment this year.

Sending your child to camp?

The Association of Private Camps, representing some 400 camps in this country and Canada, offers a free referral service. Write them at 55 West 42nd St., New York 36, N. Y., specifying location, tuition range, type of camp (boy, girl, coed) and program you prefer. The Association will send a list of three camps that closely match your requirements.

For a list of addresses, facilities, fees and other information about 3,400 children's camps, send $1 to the American Camping Association, Bradford Woods, Martinsville, Ind.

CONTINUED

Names In The News

POSTS

Dr. George Beadle, professor of biology at the California Institute of Technology and **Dr. Alvin W. Weinberg,** biophysicist and director of the Oak Ridge National Laboratory, appointed by President Eisenhower to his Science Advisory Committee.

Dr. John H. Hanks, bacteriologist of Johns Hopkins' Leonard Wood Memorial and associate professor of pathobiology at its School of Hygiene, to director of the school's new laboratory for leprosy research.

Dr. Floyd C. Bratt of Rochester, N. Y., named president-elect at annual meeting of the American Academy of General Practice; chairman of the AAGP board of directors, he has served as president of both New York State and Rochester chapters of the Academy; is member of New York Medical Society's Council Committee on Legislation and the World Medical Association.

Dr. Bernard E. Conley, from director of the Committee on Toxicology, AMA, to medical research consultant to Hoffmann-LaRoche, Inc., in Chicago. During 12 years with the AMA, he helped develop and influence Committee on Toxicology and Pesticides programs, which won award of National Safety Council.

Dr. Giles Koelsche, consultant in medicine at Mayo Clinic and assistant professor at the Mayo Foundation, installed as president of the American College of Allergists.

Dr. S. Bernard Wortis, appointed dean of New York University's School of Medicine and Post-Graduate Medical School and deputy director of the NYU-Bellevue Medical Center. He succeeds Dr. Donal Sheehan, who continues as professor and chairman of the Department of Anatomy.

Dr. Jonathan T. Lanman, associate professor of pediatrics, New York University College of Medicine, appointed professor and chairman of pediatrics at the State University of New York Downstate Medical Center.

AWARDS

Prof. Elias J. Corey of Harvard University received the $1,000 American Chemical Society Award in Pure Chemistry during the Society's National Meeting in Cleveland. The award, sponsored by the professional chemical fraternity Alpha Chi Sigma, was given the brilliant 31-year-old chemist for his determination of the chemical structure of the compound friedelin, first isolated from cork in 1807. In competition with Europe's top chemists, he solved this baffling chemical problem, which included what is probably the most extended rearrangement of atomic groups ever observed in a single organic reaction.

To the University of Wisconsin, an American Cancer Society award creating a new professorship in cancer research; this will allow **Dr. Charles Heidelberger,** 39-year-old biochemist and professor of oncology at the University, to devote his major effort to cancer investigation. The award was based on his development of 5-fluorouracil, an effective inhibitor of nucleic acid synthesis and a promising agent in the chemical treatment of cancer. He is the eighth scientist to be selected for a Society professorship in research and second at the University of Wisconsin.

To **Dr. George W. Brown, Jr.,** instructor in physiological chemistry at the University of Wisconsin, a Lederle Medical Faculty Award of $17,000 for major research in the comparative biochemistry of urea synthesis; he has been studying the evolutionary importance and methods of urea synthesis in plants and animals.

OBITUARIES

Dr. Daniel S. Cunning, 67, otolaryngologist; longtime staff member at Manhattan Eye, Ear and Throat Hospital and New York University; former president of several specialty societies; of carcinoma of the lung; in Averill Park, N. Y.

Dr. Emil H. Grubbé, 85, pioneer in the field of x-ray therapy and earliest known victim of man-made radiation; his own burns provided idea of using radiation for therapeutic purposes; he underwent 93 operations, losing most of both hands and several sections of his face; of pneumonia (an indirect result of his cancer), in Chicago.

Dr. Gregorio Marañon, 72, one of Spain's ranking physicians and professor of endocrinology; member of four Royal Academies and world authority on Spanish art, history and literature; of a coronary, in Madrid.

Dr. James R. McCord, 75, teacher of obstetrics for 42 years at Emory University and chairman of the obstetrics and gynecology department; he was a consulting physician in the making of the famous documentary "Birth of a Baby"; in Ocala, Fla.

Dr. John M. Pearce, 51, attending pathologist at New York Hospital and professor of pathology in surgery at Cornell Medical College; by drowning, at Sanibel Island, Fla.

Dr. William Sharpe, 82, brain surgeon and director of neurosurgery and neurology at New York's Manhattan General Hospital; he was acclaimed for his techniques for helping cerebral-palsied and retarded children; in his autobiography "Brain Surgeon," he recalls removing a cerebral clot from the son of China's first president—for which he received an unsolicited fee of $50,000; of cerebral hemorrhage, in St. Petersburg, Fla.

ADVERTISER INDEX

ACKNOWLEDGMENTS: 7 Thompson Ramo Wooldridge, Inc.; 14 Wide World Photos; 15, 16 American Cancer Society; 17 Jimmy Tafoya; 18, 19, 20 Ben Korngold; 26 Dr. Chi'en Liu; 27 James F. Coyne; 28 Dr. Bernard Roizman, Dr. Liu; 29 Dr. Bernard Roizman; 33 Standard Photos; 34 Stanlee Photos; 38 Ben Korngold; 46 Stanlee, American Chemical Society, American Cancer Society; 48 Joseph Merante.

Answers to Twenty Questions on p. 20:
1(d); 2(e); 3(d); 4(b); 5(c); 6(b); 7(a); 8(c); 9(c); 10(a); 11(d); 12(b); 13(e); 14(b); 15(a); 16(c); 17(d); 18(a); 19(d); 20(b).

EDITORIAL

FEDERAL AID NOT FEDERAL CONTROL

DR. MORRIS FISHBEIN

From all sides there are pressures that some plan must be developed for medical care of the aged—with the leading contender for legislative action the Forand Bill.

Under this Bill, the Government would pay for the medical, surgical and dental care of about 13 million Social Security claimants. Total expenditure has been estimated at close to a billion dollars annually.

As soon as the Forand Bill was introduced the American Medical Association outlined its opposition. Experience elsewhere in the world shows that the cost of such services continually increases and would soon reach two billion dollars annually. The demand for beds in hospitals and nursing homes would soon exhaust what is now available, and a vast building program would become essential. But even more basic, the establishment of the kind of services to be rendered—who could or could not do surgery—or the schedule of fees, indicate an invasion of the physician-patient relationship beyond anything ever contemplated in the United States.

FORAND'S ANSWERS

In reply to these criticisms, Rep. Aime J. Forand says that his bill deals simply with financing health care and would not affect its nature. That statement is in itself so naive as to cast doubt on his understanding of any medical problems.

But perhaps the most significant argument is his explanation of choice of physician, services rendered, and methods of payment. I quote:

"Doctors will continue to be responsible for determining when patients should be hospitalized, the nature of their care and the length of their stay. Problems of unnecessary hospitalization and surgery already exist under private insurance and will continue to require whatever constructive action doctors and hospitals can develop. While the bill would increase the effective demands for care, the use of nursing homes would be encouraged by my bill as an alternative to hospitalizations, at a lower cost."

This is actually a somewhat justified position but in no sense evidence that a government system would be an improvement over existing conditions.

NEED FOR ALTERNATIVE

If the Forand Bill is a bad bill, as the American Medical Association, the American Hospital Asociation and many other organizations are convinced, it should not be supported. But to deny the need for some means to meet the problem of medical care for the aged would be folly.

Alternatives to the Forand Bill have already been proposed. The almost unanimous acceptance of the Hill-Burton Act suggests that a necessary ingredient for such alternatives might simply be a separation of the source of funds from the power to administer the program. Under the Hill-Burton Act, funds are granted by the Federal Government to the individual states on a matching basis. In each state the act is administered by a special agency which grants funds to communities in need of hospital facilities. After this, the granting agency has no more control.

In many states, special commissions have already been appointed to study and, if possible, resolve the problems of the aged. With adequate funds made available through both state and federal sources, such commissions could, if necessary, purchase suitable health insurance from existing agencies and arrange for the construction of necessary hospital beds and nursing homes. Secretary Flemming is apparently inclined to accept such a proposal. He should be encouraged in making this decision.

Morris Fishbein